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# Hydrological data UK



## 1984 YEARBOOK

INSTITUTE OF HYDROLOGY • BRITISH GEOLOGICAL SURVEY



**HYDROLOGICAL DATA  
UNITED KINGDOM**

**1984**

**YEARBOOK**





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## **1984 YEARBOOK**

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An account of  
rainfall, river flows and groundwater levels  
January to December 1984

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**A note for buyers of the loose-leaf version:-**

So that this version can stand alone as a separate volume it has been necessary to repeat much of the background information which has already appeared in the 1981, 1982 and 1983 volumes. Readers may wish to save space in the binder by discarding some of the repeated pages e.g. 163 to 177.

**Cover:**

Drilling at a site for appraisal of local groundwater sources in the Permian sandstone aquifer in the Crediton Trough, Devon, during 1984.

*Photograph: Cliff Tubb*

## **FOREWORD**

In April 1982, care of the United Kingdom national archive of surface water data passed from the Department of the Environment's Water Data Unit (which was disbanded) to the Institute of Hydrology (IH). In a similar move, the Institute of Geological Sciences, subsequently renamed the British Geological Survey (BGS), took over the national groundwater archive. Both IH and BGS are component bodies of the Natural Environment Research Council (NERC). The BGS hydrogeologists are located with IH at Wallingford and close cooperation between the two groups has led, among other things, to the decision to publish a single series of yearbooks and reports dealing with nationally archived surface and groundwater data and the use made of them. The work is overseen by a steering committee with representatives of Government departments and the water industry from England, Wales, Scotland and Northern Ireland.

The published series - Hydrological data: UK - includes an annual yearbook and, every five years, a catalogue of river flow gauging stations and groundwater level recording sites together with statistical summaries. These six volumes of the 5-year cycle will be available individually but are also designed to be inserted in a ring binder. Further details of these arrangements are given on page 180.

The series - but not the binder - also includes occasional reports dealing with significant hydrological events and analyses. The first of these reports provides a review of the 1984 drought.

*J.S.G. McCulloch*  
*Director, Institute of Hydrology*





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## CONTENTS

	Page
INTRODUCTION	1
SCOPE AND SOURCES OF INFORMATION	2
REVIEW OF THE WEATHER in relation to the hydrological cycle	3
REVIEW OF RUNOFF	13
REVIEW OF GROUNDWATER	27
RIVER FLOW DATA	37
Computation and accuracy of gauged flows	37
Scope of flow data tabulations	37
Gauging station location map	42
Daily flow tables	44
Monthly flow tables	96
THE SURFACE WATER DATA RETRIEVAL SERVICE	137
List of surface water retrieval options	137
Concise register of gauging stations	147
Summary of archived data	153
GROUNDWATER LEVEL MEASUREMENT	163
Background	163
The observation borehole network	163
Index borehole location map	165
Register of selected groundwater observation wells	168
THE GROUNDWATER RETRIEVAL SERVICE	173
List of groundwater retrieval options	173
DIRECTORY OF MEASURING AUTHORITIES	178
PUBLICATIONS	180



# INTRODUCTION

This volume is the fourth Yearbook published in the Hydrological data: UK series.

Apart from summary information, surface water and groundwater data on a national basis were published separately prior to the introduction of the Hydrological data: UK series. In common with the 1981, 82 and 83 editions, the 1984 Yearbook brings together the principal data sets relating to river flow, groundwater levels and rainfall throughout the United Kingdom. A description is also given of the surface water and groundwater archives together with the data retrieval facilities which complement this volume.

Publication of river flow data for Great Britain started with the series of Surface Water Yearbooks. The first edition, which was published in 1938 for the water year (October–September) 1935–36 also included selected data for the previous fifteen years; the edition for 1936–1937 followed in 1939. Both these publications were prepared under the direction of the Inland Water Survey Committee which was founded in 1935. Assisted by the Scottish Office, the Committee continued to publish hydrological data after the war, the Yearbook for the period 1937–1945 being published as a single volume in 1952.

Due to economic stringency, the Survey was suspended in 1952 for a period of two years but was then reformed as the Surface Water Survey Centre of Great Britain. A Yearbook covering the years 1945–1953 was published in 1955.

In 1964 the Survey was transferred to the Water Resources Board where it remained until 1974 when the work of collecting and publishing surface water information in England and Wales was again transferred, this time to the Water Data Unit of the Department of the Environment. Yearbooks were published jointly each year by these organisations and the Scottish Office for the water years 1953–54 to 1965–1966, but thereafter information for the five calendar years 1966 to 1970 was published in one volume in 1974. Following editions were renamed 'Surface Water : United Kingdom' to mark the inclusion of the first records from Northern Ireland and in recognition of the move away from single year volumes. Two volumes of Surface Water : United Kingdom, covering the years 1971–73 and 1974–76 were published jointly by the Water Data Unit, the Scottish Development Department and the Department of the Environment for Northern Ireland.

Following the transfer of the surface water archive

to the Natural Environment Research Council in 1982, the final edition of Surface Water : United Kingdom, for the years 1977–80, was prepared by the Institute of Hydrology at the request of the Water Directorate of the Department of the Environment, and published in 1983.

The 1981 and 1982 Yearbooks were prepared concurrently and were the first Yearbooks published by the Natural Environment Research Council. This present volume, prepared and published concurrently with the 1983 edition, represents the twenty-fifth edition in the series of surface water publications which began with the 1935–36 Surface Water Yearbook. As a result of the incorporation of groundwater data in the Yearbook, this volume is also the ninth edition in the series of groundwater data publications which began with the 1964–66 Groundwater Yearbook.

A compilation of 'Groundwater levels in England during 1963' which was produced by the Geological Survey of Great Britain prior to its incorporation into the Institute of Geological Sciences, was the precursor to the publication of groundwater level data on a national basis. The more formal Groundwater Yearbook series was instigated by the Water Resources Board which published the inaugural edition, and a further volume for 1967, both covering England and Wales. In 1975 a third Yearbook, for 1968–70, was published by the Water Data Unit. The Groundwater : United Kingdom series was introduced in 1978 with the production of the 1971–73 volume, also published by the Water Data Unit.

Following the transfer of the groundwater archive to the Institute of Geological Sciences (now the British Geological Survey), the second edition of Groundwater : United Kingdom, covering the period 1974–80, was prepared by the Institute of Hydrology at the request of the Water Directorate of the Department of the Environment.

The 1984 Yearbook may be seen as part of the United Kingdom's contribution to UNESCO's International Hydrological Programme in continuing the exchange of hydrological information begun in 1965 for the International Hydrological Decade.

The Natural Environment Research Council acknowledge and extend their appreciation to all who have assisted in the collection of information for this publication.

# SCOPE AND SOURCES OF INFORMATION

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The format of the yearbooks in the Hydrological data: UK series differs substantially from that of previous yearbooks. A greater variety of hydrological information is provided and emphasis is placed upon ready access to basic data both within the yearbook and through the complementary data retrieval facilities.

The contents have been abstracted primarily from the surface water and groundwater archives. Responsibility for the collection and initial processing of the data rests mainly with the ten Water Authorities in England and Wales, the seven River Purification Boards in Scotland and the Department of the Environment (NI) in Northern Ireland. Additional material has been provided by the Greater London Council (now abolished), the Department of Agriculture in Northern Ireland and by research bodies and public undertakings. The majority of the rainfall data, and much of the material incorporated in the review of the weather, has been provided by the Meteorological Office. For historical comparisons of the rainfall over England and Wales a data set based upon the homogeneous series derived by the Climatic Research Unit of the University of East Anglia has been used.

Most of the rainfall data published in the Hydrological data: UK series are in the form of monthly rainfall totals for catchment areas (see page 38). For details of monthly and annual rainfalls

associated with individual raingauge sites reference should be made to the 'RAINFALL' series published regularly by the Meteorological Office. Brief details of the contents and availability of this publication, together with a short description of other rainfall and climatological data sets published by the Meteorological Office, are given below.

Some slight variations from the contributors' figures may occur; these may be due to different methods of computation or to the need for uniformity in presentation. Certain rainfall and river flow data may differ slightly from that published previously in the report on the 1984 drought (see page 180). A portion of the data presented in that publication was of a provisional nature; where corresponding data sets have been included in this yearbook they should be regarded as the more accurate.

The practice of publishing river water temperature data, followed in Surface Water: United Kingdom publications, and earlier yearbooks, has been discontinued. Monitoring of water quality, including temperature, is the responsibility of water authorities and river purification boards. Some temperature data are held by the Department of the Environment in association with the Harmonised Monitoring Scheme (contact WQ5, Room A4.26, Romney House, 43 Marsham Street, London, SW1P 3PY, tel. 01-212-6902).

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## Rainfall and Climatological Data

The Meteorological Office maintains the national archives of rainfall and climatological data at its headquarters at Bracknell. Specific items, such as daily and hourly rainfalls from gauges and radar (from the PARAGON system) may be obtained by application to the Advisory Services Branch Met O 3. Summaries of the data are also published regularly and a list of current titles is given below:

1. *Monthly and Annual Totals of RAINFALL 19\_\_ for the United Kingdom.*  
This contains the values for some 5000 rain-gauges and is available one year after the title year at a cost of £6.00.
2. *Snow Survey of Great Britain 19\_\_/\_*  
This contains the daily and monthly reports of snow conditions from selected stations covering the winter and costs £3.00.
3. *Monthly Weather Report*  
This is published monthly and contains climatological means for more than 550 UK observing

stations; in addition, an introduction and annual summary are produced yearly. The publication should be available 6 to 9 months after the month concerned; it costs around £2 and is only available from Her Majesty's Stationery Office (HMSO) or their stockists.

### 4. *M.O.R.E.C.S.*

This is a weekly issue of maps of evaporation and soil moisture deficit and the weather variables used to calculate them. The data are used to provide values for 40 km squares shown in map form and the publication consists of different sets of maps according to customer requirements.

Further information about these and other publications may be obtained from:

Meteorological Office Met O3  
London Road  
Bracknell  
Berks RG12 2SZ



# **REVIEW OF THE WEATHER - IN RELATION TO THE HYDROLOGICAL CYCLE**

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## **Summary**

The 1984 rainfall total for the United Kingdom was 1105 mm. This is very close to the 1941-70 average and Figure 1 serves to show that most regions registered 1984 rainfall totals within ten per cent of the mean although isolated districts, notably in the Lake District and to the south of Snowdonia, recorded less than 80 per cent of normal rainfall. Rainfall totals greater than 120 per cent of average were recorded in a few very restricted areas, throughout East Anglia and, more widely, in the eastern lowlands of Scotland north of the Firth of Tay. In absolute terms, the spatial variation in rainfall amounts was also somewhat more subdued than normal (Figure 2). The maximum recorded annual rainfall total for 1984 was 3754 mm at Llyndaw Mine in Snowdonia; this compares with a minimum of 501 mm registered for Foulness in Essex.

In contrast to the annual totals the distribution of rainfall within the year was very uncharacteristic. The tendency, in recent years, for the contrast between winter and summer rainfall totals to be accentuated attained an extreme expression in 1984. Following a wet January, a drought developed in the west of England and Wales and, by April, had spread to Northern Ireland and much of Scotland. The drought was broken in late August and September and some notably high autumn rainfall totals were recorded particularly in Scotland. Table 1 provides a breakdown of monthly rainfall in 1984 both on a countrywide basis and according to the major administrative divisions within the water industry (see frontispiece).

For much of 1984, conditions were conducive to high potential evaporation (PE) rates throughout the United Kingdom. Annual potential evaporation

totals were above average in all regions (Figure 3) with the greatest departure from normal in the west and the north. The rapid build-up of soil moisture deficits (SMDs) in the spring and summer resulted in the greater part of incident rainfall during this period being utilised to satisfy, or partially satisfy, established deficits. Consequently actual evaporation (AE) rates were substantially lower than the corresponding potential values. In the Tay basin, the Glasgow area and in Dumfriesshire, PE exceeded AE by more than 100 mm; a more typical figure would be 40 mm in an average year. Differences greater than 100 mm were also common throughout much of England especially in central and southern districts. In these regions, however, AE values may be expected to be considerably less than the PE values even in a normal year - a consequence of the relatively low rainfall and dry soil conditions which causes plants to be unable to capture enough water to meet the atmospheric demand.

The variation in soil moisture throughout the year paralleled the regional differences in rainfall deficits as the drought developed although the effect of the very dry April particularly was to produce seasonally high SMDs throughout the United Kingdom. The most notable, relative to normal conditions, occurred in the northern and western regions of Great Britain. At Renfrew in Scotland, for instance, the magnitude of the soil moisture deficits over the March to October period were unprecedented in a twenty-five year record. In the drier English lowlands SMDs were generally well above average throughout the drought and at some locations, for example Wittering in Northamptonshire, remained so well into November.

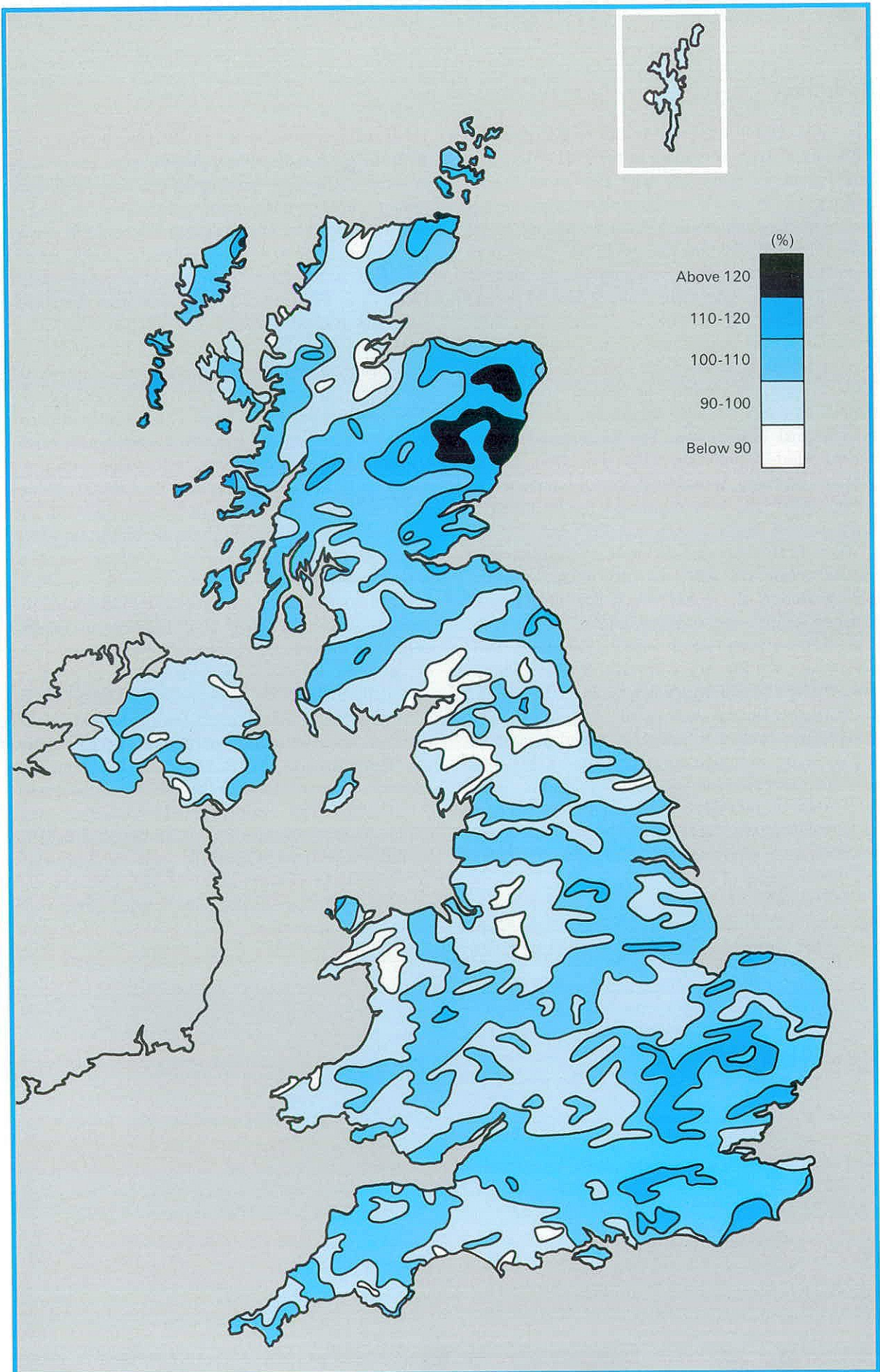


Figure 1. 1984 Annual rainfall as a percentage of the 1941-70 average.



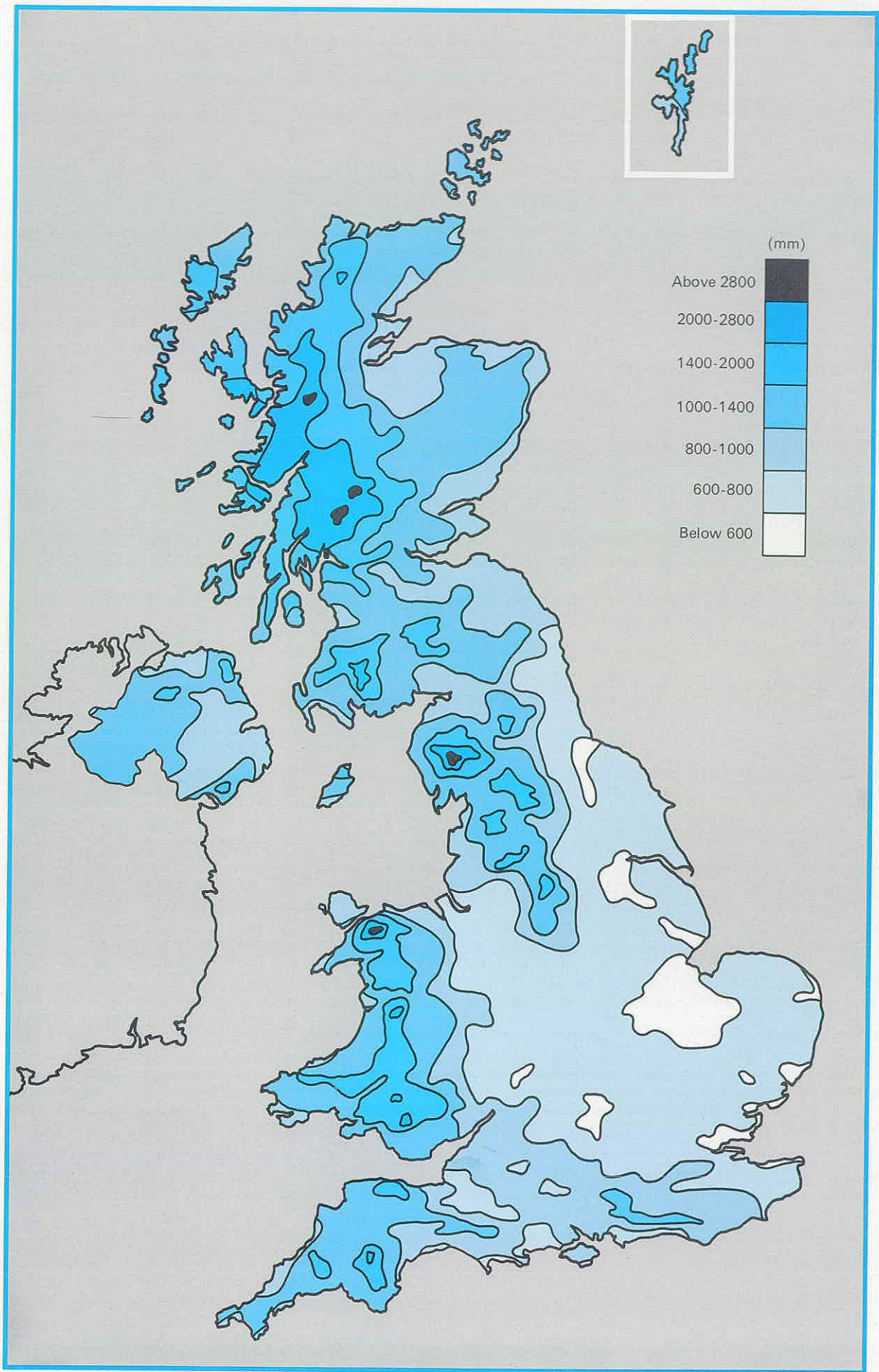


Figure 2. Annual rainfall in 1984.

TABLE 1 1984 RAINFALL IN MM AND AS A PERCENTAGE OF THE 1941-70 AVERAGE

		J	F	M	A	M	J	J	A	S	O	N	D	YEAR
United Kingdom	mm	172	78	74	28	46	51	37	56	131	138	172	110	1093
	%	167	100	150	41	61	70	42	54	128	130	155	97	100
England and Wales	mm	144	57	59	11	59	43	27	57	116	100	145	80	898
	%	167	88	100	19	88	71	37	63	140	121	149	89	98
Scotland	mm	223	111	103	60	24	66	55	50	166	216	234	165	1473
	%	163	107	112	67	26	72	49	39	121	145	165	106	103
Northern Ireland	mm	180	111	72	30	22	57	49	71	104	112	112	115	1035
	%	173	148	103	44	30	72	53	69	97	105	110	101	95
North West Water	mm	176	73	57	19	30	73	30	72	168	154	190	103	1145
	%	157	90	79	25	37	88	29	58	137	131	157	86	94
Northumbrian Water	mm	123	47	85	14	26	56	30	58	110	71	178	49	847
	%	154	71	163	25	41	92	39	57	139	95	189	65	96
Severn Trent Water	mm	108	54	54	8	58	44	20	67	100	69	127	55	764
	%	157	102	104	14	91	79	31	83	149	106	161	79	99
Yorkshire Water	mm	143	52	69	13	44	43	18	61	118	84	134	48	827
	%	186	81	130	23	72	74	26	68	164	122	151	65	99
Anglian Water	mm	84	38	48	13	70	45	21	47	88	49	79	42	624
	%	161	90	120	33	149	92	37	73	169	94	127	79	102
Thames Water	mm	104	39	63	5	81	36	19	39	93	77	106	64	726
	%	168	83	137	11	145	69	32	56	150	120	145	97	103
Southern Water	mm	142	38	79	5	78	27	37	27	69	111	116	105	834
	%	187	67	152	10	142	54	63	37	97	142	123	130	105
Wessex Water	mm	162	51	55	3	78	28	24	46	97	88	142	94	868
	%	193	86	95	6	115	52	45	56	123	107	146	104	100
South West Water	mm	242	90	64	8	65	19	42	67	134	138	209	122	1200
	%	188	100	76	11	77	29	50	66	129	122	156	90	101
Welsh Water	mm	213	88	50	12	53	45	30	74	171	178	215	153	1282
	%	157	92	57	14	58	55	32	62	137	138	150	105	96
Highland R.P.B.	mm	235	130	103	102	24	73	61	57	200	262	219	215	1681
	%	143	98	90	89	23	66	48	39	127	141	130	110	98
North East R.P.B.	mm	155	67	120	23	22	49	58	31	139	126	238	107	1135
	%	170	91	193	38	31	70	63	29	160	130	231	105	111
Tay R.P.B.	mm	214	103	135	28	30	50	39	25	140	173	288	134	1359
	%	181	112	165	37	32	60	38	21	122	142	242	100	108
Forth R.P.B.	mm	177	85	98	29	34	61	30	34	122	165	232	113	1180
	%	179	110	142	43	40	81	31	29	113	156	215	104	106
Clyde R.P.B.	mm	269	138	88	64	18	78	61	70	189	276	244	197	1692
	%	167	122	84	62	19	76	47	49	108	151	146	106	102
Tweed R.P.B.	mm	159	60	107	16	25	64	40	37	88	97	219	75	987
	%	171	87	184	26	33	94	45	32	95	110	211	83	98
Solway R.P.B.	mm	235	116	69	37	18	64	37	58	141	218	212	153	1358
	%	168	125	76	42	20	71	34	45	93	151	146	101	95
Western Isles Orkney and Shetland	mm	195	95	79	85	24	56	61	49	149	218	153	148	1312
	%	143	92	86	102	35	72	73	52	118	148	104	97	101



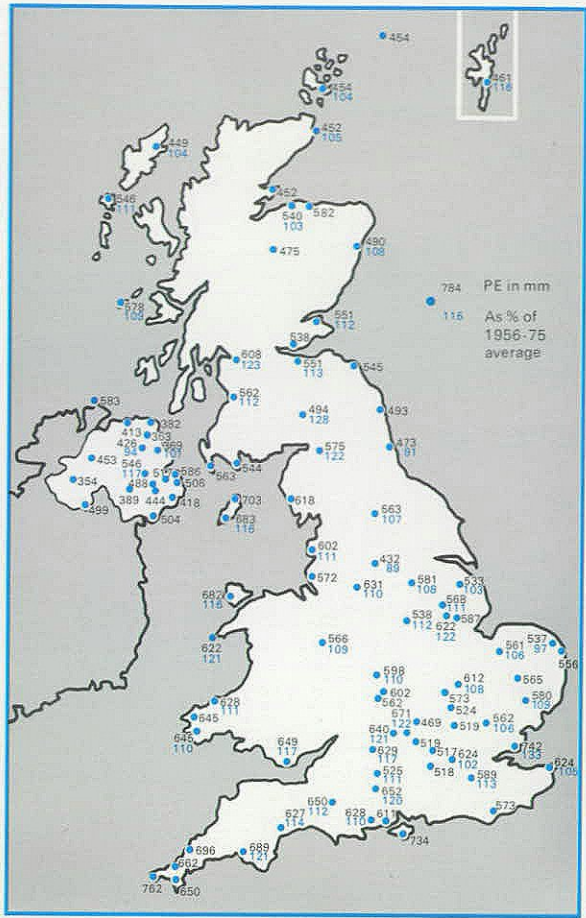


Figure 3. Potential evaporation in 1984—in mm and as a percentage of the long term average.

### The 1984 Drought

Apart from a few localities in the south and east of England, rainfall in the period from February to August was significantly below average throughout the United Kingdom. Most of Wales and much of Scotland had appreciably less than 60 per cent of normal rainfall. Over the seven months starting in February 1984 the United Kingdom drought ranks second in severity to 1976 (Table 2) and is significantly drier than the same period in the droughts of 1921 and 1955. The drought was even more marked over the five months starting in April (Figure 4); rainfall over the United Kingdom during this period was less than 60 per cent of average. The accumulated rainfall total for the five months from April 1984 is 207 millimetres. Table 2 confirms that this represents the driest April to August period over the United Kingdom this century, approached only by 1976.

The drought's severity in Scotland and Wales can be broadly assessed by examination of Figure 4; less than half the average rainfall was experienced over the larger part of both countries between April and August, and some districts had less than one third. Average rainfall figures for Scotland are available back to 1869 and the five months commencing April 1984 are, again, the driest on record with a more severe rainfall deficit than the notable drought of 1955. A somewhat shorter rainfall series exists for

TABLE 2 LOWEST RECORDED RAINFALL TOTALS : FEB-AUG AND APR-AUG

UNITED KINGDOM Data Series 1900-1984					ENGLAND AND WALES Data Series 1766-1984				
Year	Feb-Aug Rainfall (mm)	Year	Apr-Aug Rainfall (mm)	RANK	Year	Feb-Aug Rainfall (mm)	Year	Apr-Aug Rainfall (mm)	
1976	356	1984	218	1	1976	249	1976	159	
1984	370	1976	222	2	1887	277	1870	192	
1921	388	1921	275	3	1921	282	1826	192	
1955	406	1955	281	4	1870	310	1984	197	
1929	414	1933	298	5	1984	313	1887	203	
1975	417	1911	298	6	1785	317	1864	210	
1959	417	1919	301	7	1929	323	1921	213	
1944	432	1975	306	8	1959	333	1844	213	
1949	435	1949	310	9	1854	335	1896	228	
1911	443	1913	310	10	1949	337	1911	234	
	534		379	Average		477		352	
SCOTLAND Data Series 1869-1984					NORTHERN IRELAND Data Series 1900-1984				
Year	Feb-Aug Rainfall (mm)	Year	Apr-Aug Rainfall (mm)	RANK	Year	Feb-Aug Rainfall (mm)	Year	Apr-Aug Rainfall (mm)	
1955	422	1984	255	1	1975	326	1984	229	
1887	463	1955	280	2	1976	404	1975	238	
1984	469	1869	280	3	1984	412	1983	250	
1870	470	1870	312	4	1983	413	1978	268	
1869	488	1887	323	5	1952	416	1976	272	
1878	508	1976	332	6	1959	422	1977	300	
1919	517	1880	351	7	1919	429	1919	304	
1875	517	1913	353	8	1911	440	1911	306	
1936	518	1915	356	9	1921	447	1959	311	
1975	519	1885	356	10	1968	449	1949	312	
	641		446	Average		538		389	



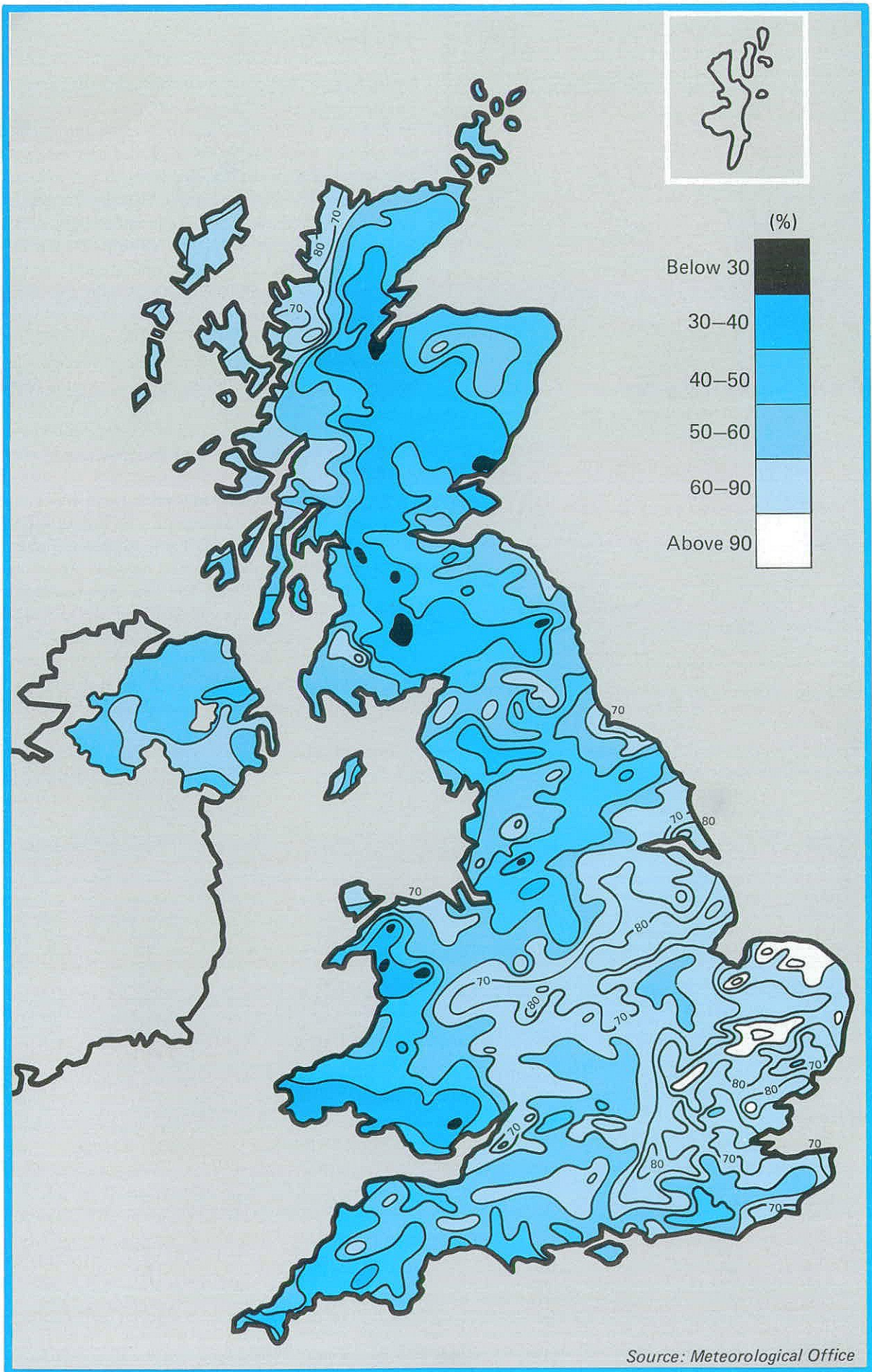


Figure 4. April to August rainfall 1984 as a percentage of the 1941-70 average.



Northern Ireland but the April to August rainfall, totalling only 199 mm, clearly conforms to the general pattern being marginally drier than 1975 which was the previous driest such sequence this century.

Taken in isolation these rainfall figures provide compelling evidence for a very severe drought. This is emphasised by Figure 5 which suggests that such an exceptionally dry late spring and summer might be expected only once every 200 years or more. Such a frequency estimate, particularly of this magnitude, should be treated with caution since it assumes a sensibly stable climate and is based upon the relatively short United Kingdom rainfall series.

The most noticeable feature of the drought was its greater severity in those upland regions normally associated with higher, and more reliable, rainfall. Such areas are commonly exploited within water resources systems designed to augment supplies in the drier regions of the country. As a consequence, the potential scale of the drought's effect was large. Certainly the drought's impact was considerable in some areas but, generally, was more limited than the prolonged drought of 1975/76. Primarily, this reflects the relatively short duration of the 1984 drought. However, the lessons learnt in 1976, allied to the increasing integration of water resources systems, undoubtedly had a mitigating effect.

A general categorisation of the drought as embracing the spring and summer, which is reasonable for the United Kingdom as a whole, tends to mask important regional differences in the drought's duration. Broadly speaking the drought began in February and March in the Welsh, the North West and the South West Water Authority areas. It had extended to the Northumbrian, Yorkshire, Severn Trent and Wessex Water Authorities by April when the drought also developed in Scotland and Northern Ireland. May was relatively wet in the south and east of England and, as a result, rainfall deficiencies in the Anglian, Thames and Southern Water Authorities were largely confined to the summer months.

Generally, examinations of drought intensity are, quite properly, conducted in terms of the departure from average rainfall conditions. It is interesting though to consider the absolute rainfall amounts during a period of substantial rainfall deficiency. Throughout the spring and summer of 1984 the normal pattern of rainfall over England and Wales, which is influenced mainly by elevation and the predominance of a westerly airstream, was very little in evidence. A remarkable conformity in rainfall totals over England and Wales, for the five month drought period, could be recognised with totals in the range of 180–220 mm being typical of most regions. It will be appreciated, therefore, that a given precipitation total may represent a severe drought in some regions and adequate rainfall in others.

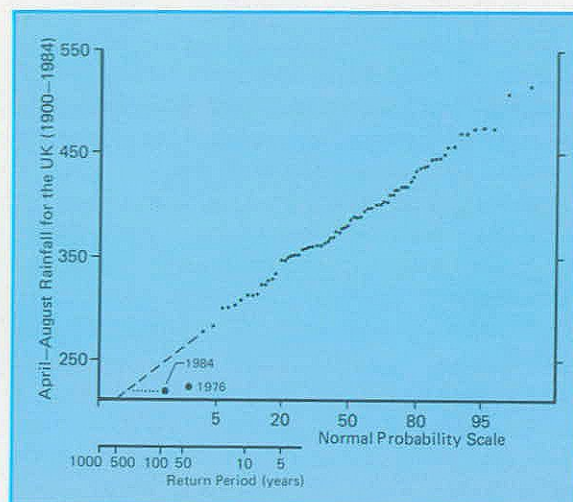


Figure 5. Return period assessment of April to August rainfall for the United Kingdom. Estimates of the frequency of occurrence of the 1984 and 1976 events may be obtained by locating their ordinates on the extrapolated probability plot (shown dotted for 1984).

## The Weather in 1984

January witnessed the strongest and most persistent westerly winds for many years in association with a series of depressions which crossed the British Isles. Total monthly precipitation was more than 150 per cent of the average throughout Great Britain; Northern Ireland recorded its wettest January this century. Blizzards caused large accumulations of snow in many northern regions, particularly in the Scottish Highlands. A milder spell at the end of the month was accompanied by a gradual snow-melt. In early February a low pressure area, centred over Iceland, deepened and a strong ridge of high pressure developed from the Azores to France. This synoptic pattern resulted in a very variable distribution of rainfall in the United Kingdom. Monthly precipitation was modest in southern England but above average in western Scotland and in Northern Ireland which experienced exceptionally heavy rainfall on the 19th and the 20th.

In the context of what was to follow, the winter (December–February) rainfall in 1983/84 was of particular importance. The winter was wet in all regions, exceptionally so in Scotland which experienced its wettest winter since 1915, and in Northern Ireland which has recorded no wetter December to February period this century. Although several strategically important reservoir catchments, particularly in Wales and in the Lake District, had only average rainfall, the United Kingdom was generally well placed to withstand a spring and summer drought; infiltration to aquifers and the replenishment of surface water reservoirs had been substantial during the winter months.

The relatively uncommon easterly and northerly airstreams, which strongly influenced weather pat-



terns in the late winter, continued into March and helped to establish the regional contrasts in rainfall that were to characterise the early months of the drought. March rainfall totals were above average in southern and eastern England but below average in the west and north. Parts of Snowdonia and the south-west peninsular recorded less than one third of normal March rainfall whereas above average rainfall assured ample infiltration into the important Chalk aquifer to the east. The drought became firmly established as a consequence of the extremely low rainfall totals in April and early May. Apart from north-west Scotland, and the Sperrin mountains in Northern Ireland, dry, or very dry, conditions obtained throughout the United Kingdom. Both England and Wales recorded their lowest April rainfall totals since 1938. Large areas were restricted to less than 5 mm of rain over the thirty days and a few districts, notably near Cirencester in the Cotswolds, had none at all.

With the prevailing winds still from the east, a noteworthy rain-free period extended well into May. Parts of East Anglia reported five rainless weeks and twenty, or more, consecutive dry days were recorded at many localities across central England and southern Wales. The combined April/May rainfall in Northern Ireland was unprecedented. A new May minimum rainfall total was established for Scotland where Galloway and the Clyde Valley were especially dry. England and Wales were significantly wetter; the drought's development was slowed particularly in the south-east by heavy rainfall, often thundery, after the middle of May. The 21st was the wettest day of the year over England and Wales and very localised thunderstorms brought isolated rainfalls to parts of Scotland on the 24th.

Early June rainfall was followed by another prolonged dry spell which lasted up to ten weeks in some areas. Intense local droughts developed in regions with general rainfall deficits, for instance, in Cumbria, Snowdonia and on Dartmoor. However in mid-month the hot and humid conditions gave rise to a series of thunderstorms in the English lowlands, with Norfolk particularly severely affected; a fall of 73 mm was measured at Bressingham on the 17th. Scotland remained dry, apart from the west coast and the Tweed basin, with the droughts in the Tay and Clyde valleys becoming severe. April to June rainfall was approximately 30 mm less than the previous minimum (232 mm) for Scotland, recorded in 1869. Over the same three months, rainfall in Northern Ireland was the lowest total on record.

July was the fifth driest this century in England and Wales. Generally the limited rainfall was concentrated at the end of the month and resulted either from weak troughs to the south and west or from thunderstorms. The period 10–13th was also unsettled in some areas and at Woodburn, County Antrim, an intense fall of 55 mm in 4 hours occurred on the 11th. In contrast, Gwynedd and Gwent

received only token rainfall in July and Yorkshire was also particularly dry.

A slight easing of the drought resulted from widespread rainfall at the beginning of August over England and Wales. The rainfall was associated with a depression over the Irish Sea; this brought moderate to heavy falls to Cornwall, North Wales and northern England. Further thundery activity was also experienced, producing some of the most severe storms of the year; near Bristol two separate rainfall events recorded a combined total of 87 mm on the 2nd. The period of unsettled weather continued as a series of occluded fronts, with associated convective storms, crossed Great Britain. In one such episode along the south coast on the night of the 24/25th July several particularly intense cells were reported with Hayling Island recording more than 90 mm over a nine hour period; such an event has an estimated return period of approximately 500 years. Although less remarkable when considered over the full rainfall day the Hayling Island event is still categorised as 'very rare' under the Meteorological Office's 'Bilham' classification of heavy falls. Table 3 provides a listing of 'very rare' daily rainfalls, and serves to emphasise the virtual absence of notable events, at this time scale, during 1984. Despite the local impact of thunderstorms the July rainfall total for the United Kingdom was only marginally over 40 per cent of the average.

In Scotland, August rainfall was locally variable and sporadic in nature; all the river purification board areas recorded 50 per cent, or less, of average rainfall. Considering the three month summer period, Scotland had its driest June–August on record and lower summer rainfall totals have been recorded in only four years this century for England and Wales; one such was the summer of 1983 when Northern Ireland also experienced a somewhat drier June–August than in 1984.

The summer of 1984 was very hot as well as exceptionally dry. As a consequence evaporative losses from reservoirs were the cause of some concern as the summer progressed. Although transpiration was restricted by the limited availability of soil moisture, evaporation from reservoirs and lakes could, of course, proceed at the open water rate. In some areas PE rates reached record levels in 1984. At Aberporth in Wales, for example, the accumulated potential evaporation over the period April to September was unprecedented, being marginally greater than the corresponding figure for 1976. Evaporation alone caused drops of more than 20 mm per week in some lakes and reservoirs in north-west England during July and August and impoundments in Devon and Cornwall were estimated to be losing between 2 and 5 per cent of capacity in August for this reason.

Soil moisture deficits remained high throughout the summer and in many regions had been well above average since the late spring. Maximum SMD values (see Figure 6), which generally occurred in late



August or early September in 1984, were comparable with the highest recorded since 1961 when the routine computation of SMDs began at many of the monitoring sites in the national network. Peak deficits were particularly noteworthy in the wetter regions of the United Kingdom; throughout much of the English lowlands larger deficits were registered in 1976.

Apart from Northern Ireland, and a few areas in southern Scotland, the drought was broken by sustained and widespread September rainfall. The month began with thundery conditions and became progressively more unsettled.

In the Clyde Valley and parts of South Wales, September rainfall was comparable with the accumulated total for the previous five months. Spatial variability continued to characterise the rainfall pattern though; Thirlmere, for instance, had slightly below average September rainfall.

Notwithstanding the effect of the September rainfall, the summer half-year (April–September) was remarkably dry especially in Scotland where only in 1915 has a lower six-month rainfall total been recorded, and in Wales when only 1933 has been drier this century.

Autumn continued to feature prolonged spells of unsettled weather with heavy rainfall throughout October and, particularly, November. The third week of October was a period of especially persistent rainfall in the western hills of Great Britain; up to 200 mm were recorded over the eight days from October the 17th on Dartmoor and Exmoor, the Welsh hills, the Pennines and parts of the Scottish Highlands. Scotland had its wettest November since general rainfall figures were established; eastern districts reported very high monthly rainfall totals with the North East, Tay, Forth and Tweed River Purification Board areas registering more than twice the average.

Extended periods of rainfall deficiency have been succeeded by very wet spells on several occasions in the past, most notably following the droughts of 1976 and 1929. In 1984 almost all water authority and river purification board areas recorded above average rain-

fall for each of the autumn months. The accumulated September to November rainfall total for Great Britain was the third highest on record continuing the recent sequence of remarkably wet autumns; both 1981 and 1982 were comparable with 1984.

After the first week, December was rather more settled and drier conditions prevailed particularly in central and northern England. Sleet and snow showers were widespread after the 25th but total precipitation for December was average, or less, in most regions.

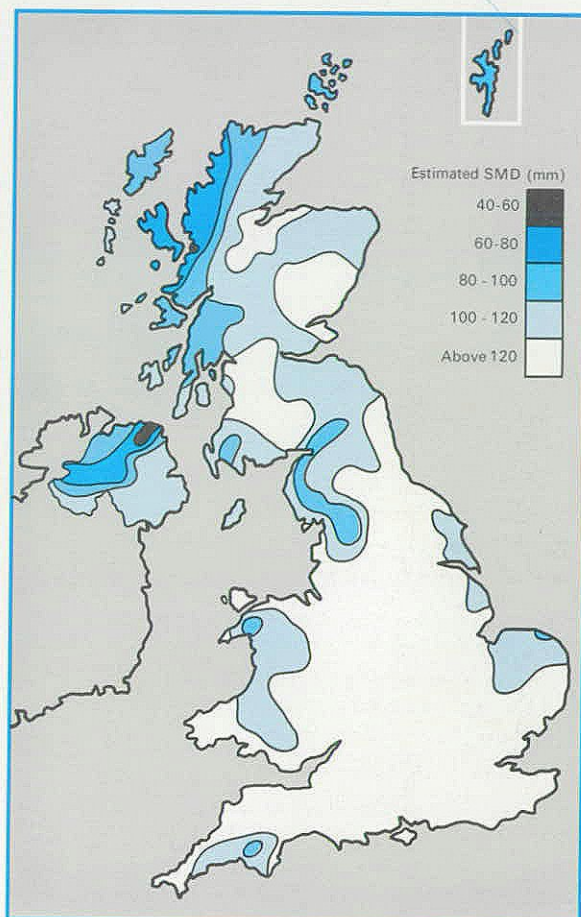


Figure 6. Estimated maximum soil moisture deficits in 1984.

TABLE 3 'VERY RARE' DAILY RAINFALL TOTALS IN 1984

Date (Rain- day)	Station Number	Name	Grid Reference	Amount (mm)	Return Period (1 in x years)*
24.07.84	322299	Hayling, Beachlands Office	SZ 716988	91.5	310
24.07.84	322335	Havant, Water Works	SU 711063	86.5E	170

\*Based on the methods and findings of the Flood Studies Report Vol II<sup>1</sup> (as implemented on the Meteorological Office computer<sup>2</sup>) whereby a return period can be assigned to the catch at a particular raingauge. Those exceeding a 160 year return period are classified as 'very rare' events.

E – rainfall total estimated.

<sup>1</sup>Flood Studies Report 1975. Natural Environment Research Council (5 Vols).

<sup>2</sup>Keers J.F. and Westcott P. 1977. A computer-based model for design rainfall in the United Kingdom: Meteorological Office Scientific Paper No. 36.



# REVIEW OF RUNOFF

## Summary

In a normal year, total runoff over Great Britain is approximately 620 mm; runoff from Scotland is about twice that for England and Wales. Considered over the year as a whole 1984 was unremarkable with runoff close to the average. Figure 7 provides a guide to runoff expressed as a percentage of the period of record average. The map is based upon discharge data for some 420 gauging stations and is least precise in northern Scotland and in the Welsh mountains where the monitoring network is sparse. Figure 7 shows a large measure of spatial uniformity with most regions recording annual runoffs within 20 per cent of the mean. However, the distribution of runoff throughout 1984 was very atypical and the range of flows experienced was exceptionally large. Figure 8 (a-d) illustrates the distribution of river flows throughout 1984. Daily and monthly hydrographs are shown for individual gauging stations in England, Scotland, Wales and Northern Ireland; the monthly hydrographs are superimposed upon the corresponding maximum, minimum and mean values for the period of record. Also shown are flow duration curves for the single year and the period of record.

The spring and summer witnessed extremely rapid falls in runoff rates in many areas, and by August even some of the low flows recorded during the great drought of 1975/76 had been superseded. River flows picked up strongly through the autumn and, although serious flooding was uncommon, runoff totals over the September to November period were notably high. The seasonal contrasts in runoff resulting from the greater hydrological effectiveness of winter rainfall were present to an exaggerated degree in 1984. Figure 9 illustrates the distribution of river flows for the Clyde throughout the year compared with the average sequence of

flows. Very high flows characterised January and February and the autumn of 1984 whilst extremely low discharges obtained throughout the late spring and the summer. The runoff pattern exhibited by the Clyde was typical of many rivers throughout the United Kingdom although in southern and eastern England runoff was not greatly diminished in those rivers where groundwater contributes a substantial proportion of total streamflow.

A further indication of the abnormality of the 1984 flow regime for a particular gauging station may be obtained by examining the flow duration curves presented in Figure 8 which allow the proportion of time a river falls below a given threshold to be identified. Whilst the flow exceeded for half the time in the River Tay at the Ballathie gauging station, for instance, was comparable for both 1984 and the whole 25 year record, the flow exceeded 95 per cent of the time in 1984 was little over half the whole record figure.

Because rainfall during 1984 was concentrated in those parts of the year when evaporation rates were at their lowest, the proportion of rainfall lost to evaporation was significantly below average. Actual evaporation (AE), for the year, fell below the potential evaporation (PE) estimates by a substantially wider margin than normal. The difference exceeded 100 mm over wide areas even in Scotland where potential and actual evaporation rates are often comparable. Consequently, over the year as a whole, 1984 rainfall was more than usually hydrologically effective. Table 4, which presents water balances for a network of catchments throughout Great Britain, confirms that the annual runoff for 1984, expressed as a percentage of the catchment rainfall, was generally higher than the period of record average.



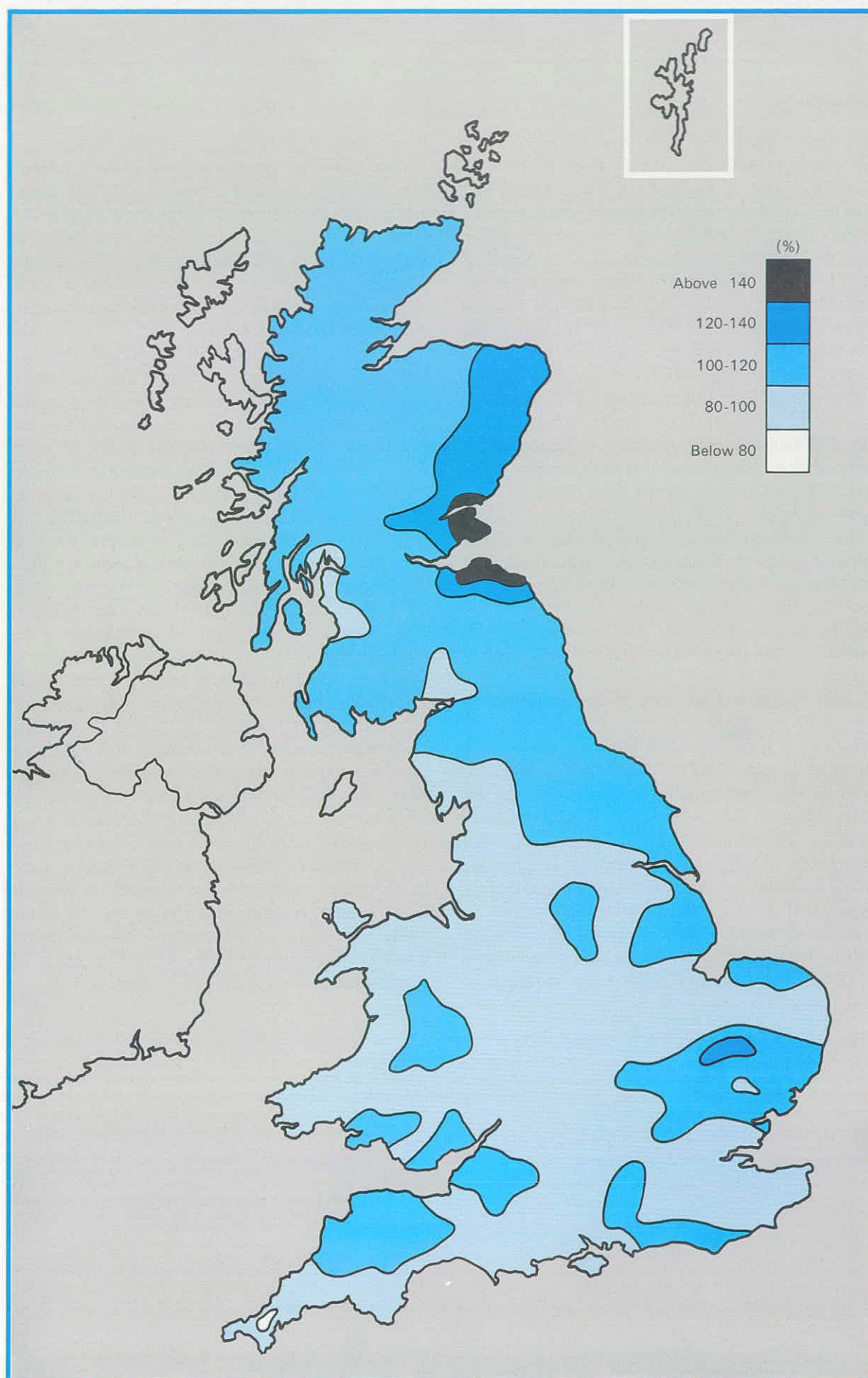


Figure 7. A guide to 1984 runoff expressed as a percentage of the long term average.



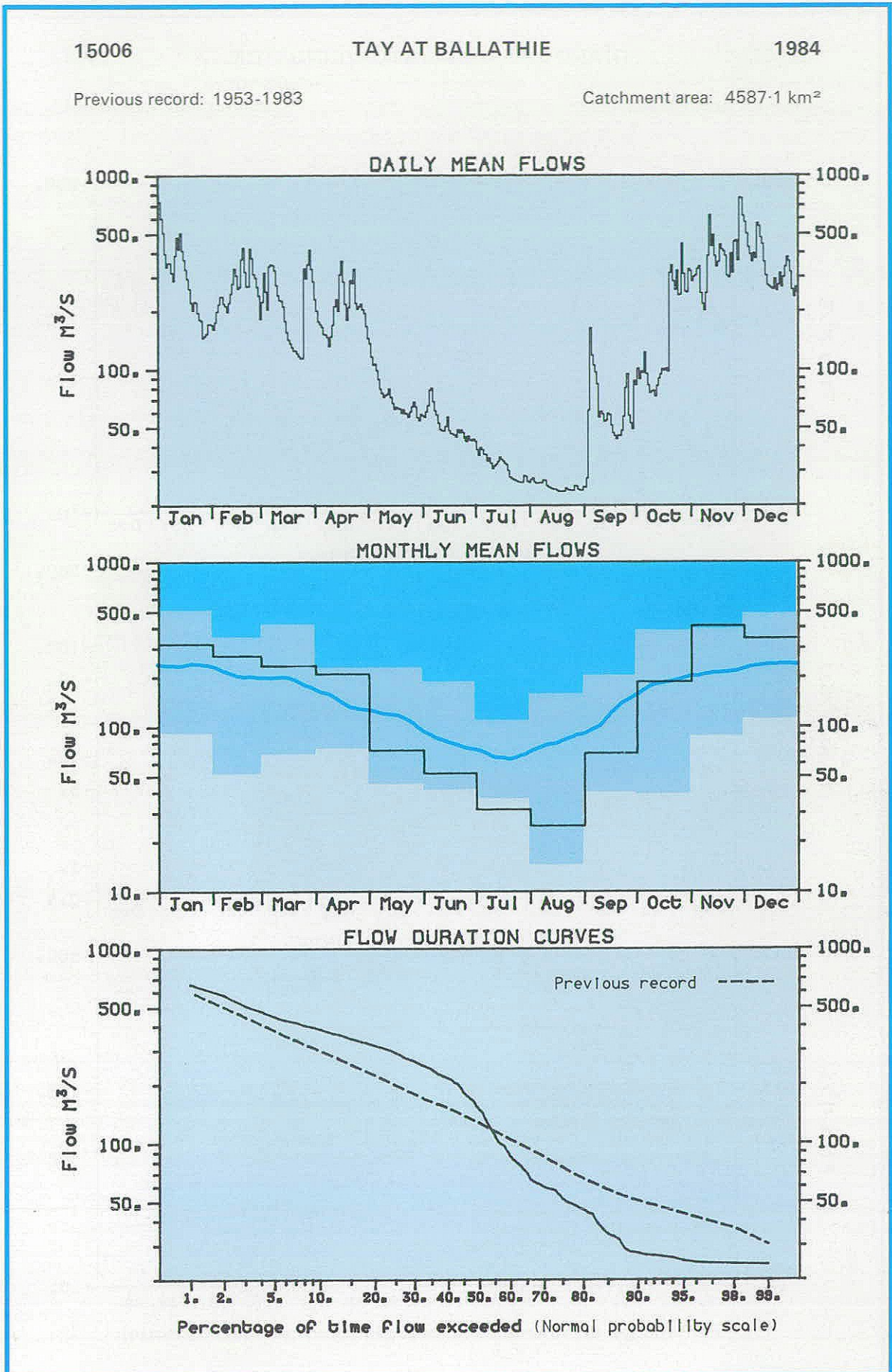


Figure 8a. River flow patterns: Tay at Ballathie.  
(The 1984 trace is shown as a solid black line; the solid blue line represents the 30-day running mean for the period of record.)



39001

THAMES AT TEDDINGTON/KINGSTON

1984

(Naturalised)

Previous record: 1883-1983

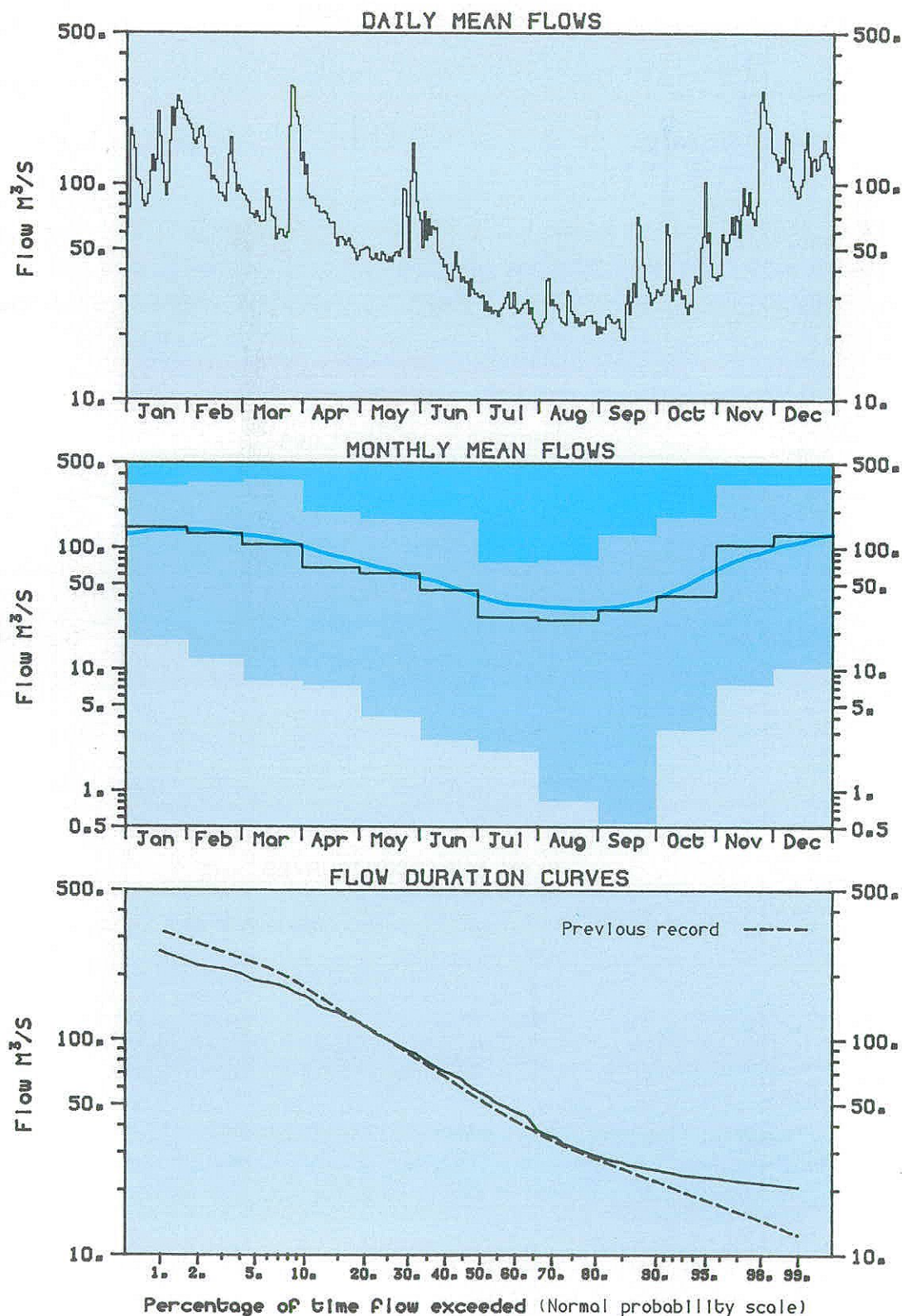
Catchment area: 9950.0 km<sup>2</sup>

Figure 8b. River flow patterns: Thames at Teddington/Kingston.  
 (The 1984 trace is shown as a solid black line; the solid blue line represents the 30-day running mean for the period of record.)



56001

USK AT CHAINBRIDGE

1984

Previous record: 1958-1983

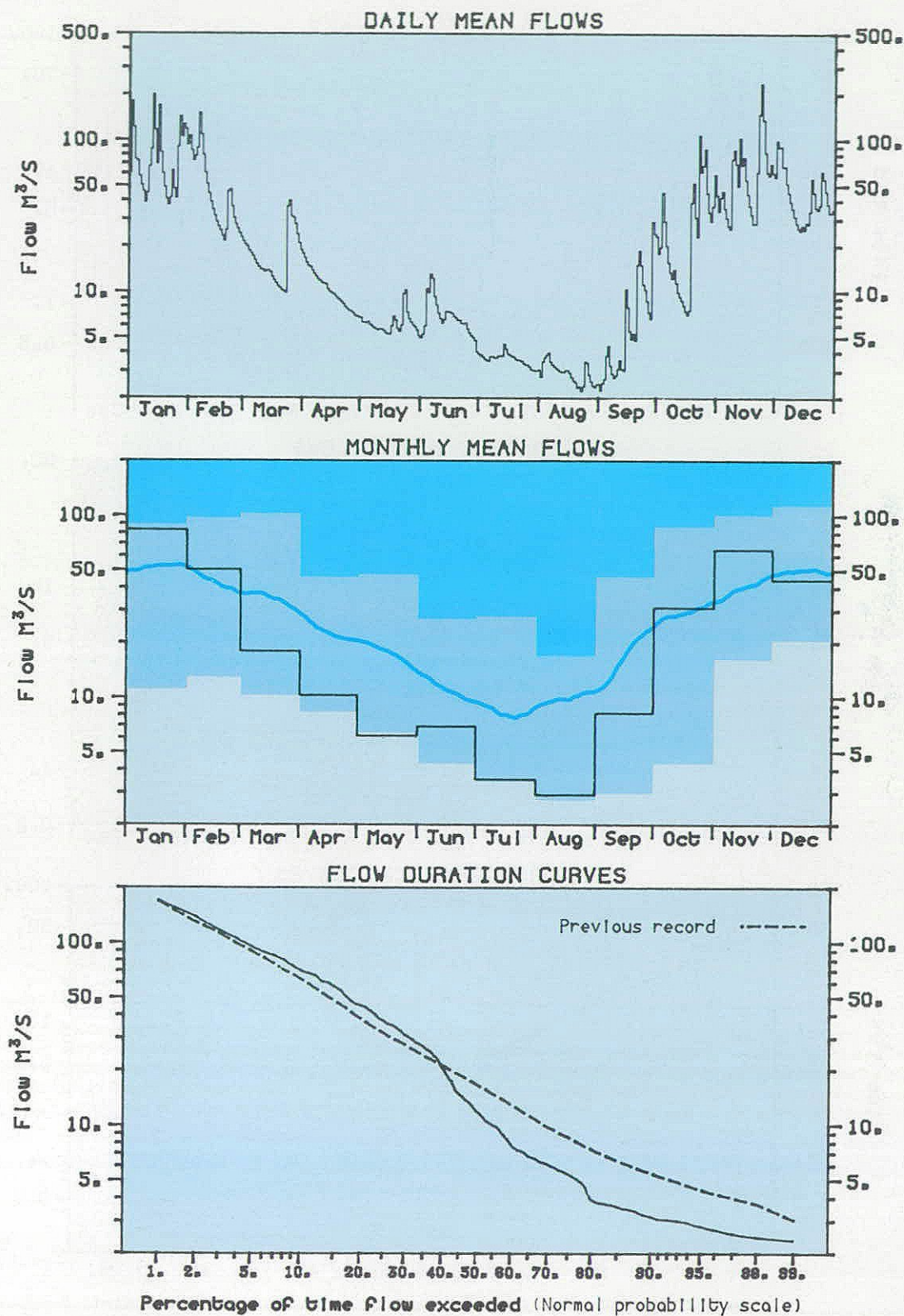
Catchment area: 911.7 km<sup>2</sup>

Figure 8c. River flow patterns: Usk at Chain Bridge.

(The 1984 trace is shown as a solid black line; the solid blue line represents the 30-day running mean for the period of record.)



201005

CAMOWEN AT CAMOWEN TERRACE

1984

Previous record: 1973-1983

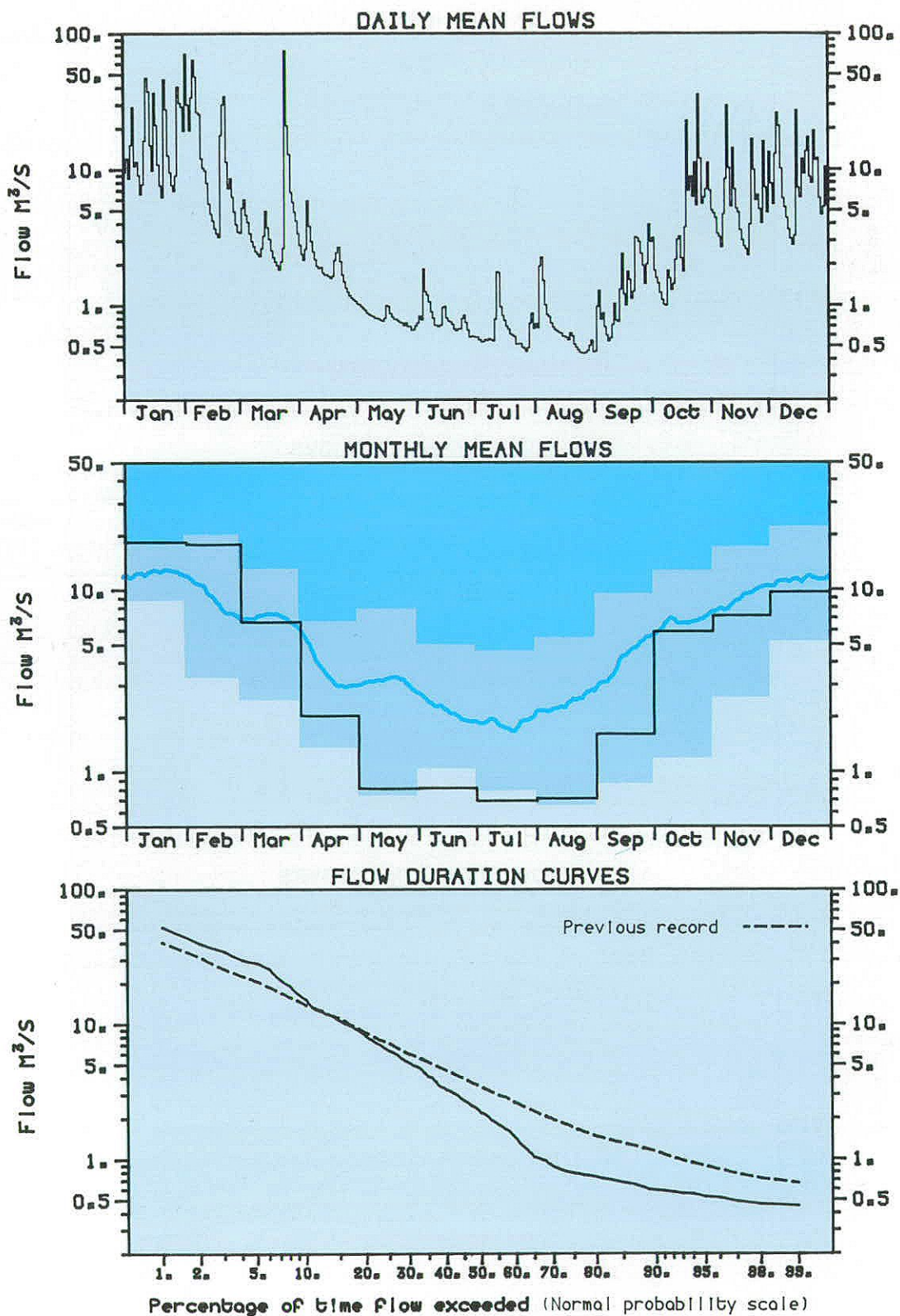
Catchment area: 274.6 km<sup>2</sup>

Figure 8d. River flow patterns: Camowen at Camowen Terrace.  
(The 1984 trace is shown as a solid black line; the solid blue line represents the 30-day running mean for the period of record.)

TABLE 4 1984 WATER BALANCES FOR SELECTED CATCHMENTS IN GREAT BRITAIN

Station Number	River and Station Name			Rainfall	Runoff	Loss	Runoff as a % of Rainfall		Abstractions* and Discharges
							1984	lta	
7002	Findhorn	Forres	1984 mm	1128	804	324	71	69	N
			as a % of lta	102	106	95			
12001	Dee	Woodend	1984 mm	1330	1027	303	77	75	N
			as a % of lta	121	123	113			
15006	Tay	Ballathie	1984 mm	1560	1269	291	81	76	H
			as a % of lta	109	115	87			
18001	Allan Water	Kinbuck	1984 mm	1388	1022	366	73	72	N
			as a % of lta	106	108	103			
19001	Almond	Craigiehall	1984 mm	972	629	343	64	53	E I P
			as a % of lta	112	135	86			
21012	Teviot	Hawick	1984 mm	1128	821	307	72	64	N
			as a % of lta	92	104	70			
24004	Bedburn Beck	Bedburn	1984 mm	843	498	345	59	56	N
			as a % of lta	92	95	87			
27002	Wharfe	Flint Mill Weir	1984 mm	1179	708	471	60	63	S R P I
			as a % of lta	101	96	110			
28008	Dove	Rocester Weir	1984 mm	942	551	391	58	57	G E
			as a % of lta	90	92	87			
30001	Witham	Claypole Mill	1984 mm	641	196	445	30	29	R P G I
			as a % of lta	102	105	100			
32001	Nene	Orton	1984 mm	618	172	446	27	31	S P E I
			as a % of lta	97	86	102			
33002	Bedford Ouse	Bedford	1984 mm	677	238	439	35	35	S P G E I
			as a % of lta	104	104	103			
34003	Bure	Ingworth	1984 mm	719	232	487	32	31	G I
			as a % of lta	106	110	104			
36006	Stour	Langham	1984 mm	650	188	462	28	26	R E I
			as a % of lta	112	121	108			
37001	Roding	Redbridge	1984 mm	636	211	425	33	33	S E I
			as a % of lta	101	99	102			
38003	Mimram	Panshanger Park	1984 mm	695	120	575	17	19	G I
			as a % of lta	105	95	107			
39001	Thames	Kingston/Teddington	1984 mm	742	238	503	32	37	Naturalised
			as a % of lta	103	89	111			
39007	Blackwater	Swallowfield	1984 mm	781	302	479	38	37	E
			as a % of lta	108	110	106			
40005	Beult	Stile Bridge	1984 mm	709	237	472	33	32	E
			as a % of lta	84	85	83			
44002	Piddle	Baggs Mill	1984 mm	981	349	632	35	39	I
			as a % of lta	91	81	98			
45001	Exe	Thorverton	1984 mm	1349	892	457	66	65	P G E I
			as a % of lta	106	108	104			
50001	Taw	Umberleigh	1984 mm	1224	724	500	59	60	S P E
			as a % of lta	106	103	111			
52005	Tone	Bishops Hull	1984 mm	1090	561	529	51	47	R
			as a % of lta	106	116	98			
54005	Severn	Montford	1984 mm	1179	698	481	59	56	S R P
			as a % of lta	100	105	94			
55008	Wye	Cefn Brwyn	1984 mm	2219	1790	429	80	75	N
			as a % of lta	75	80	60			
57004	Cynon	Abercynon	1984 mm	1722	1263	459	73	63	S E
			as a % of lta	88	101	64			
62001	Teifi	Glan Teifi	1984 mm	1305	906	399	69	72	S P
			as a % of lta	92	89	101			
67001	Dee	Bala	1984 mm	1678	1317	361	78	83	S R
			as a % of lta	90	85	117			
68001	Weaver	Ashbrook	1984 mm	694	244	450	35	37	P G E
			as a % of lta	75	71	78			
75002	Derwent	Camerton	1984 mm	1639	1175	464	71	71	S P
			as a % of lta	93	93	94			
84005	Clyde	Blairston	1984 mm	1162	842	320	72	65	
			as a % of lta	101	112	81			

lta = long term average

\* For an explanation of the code letters see page 40



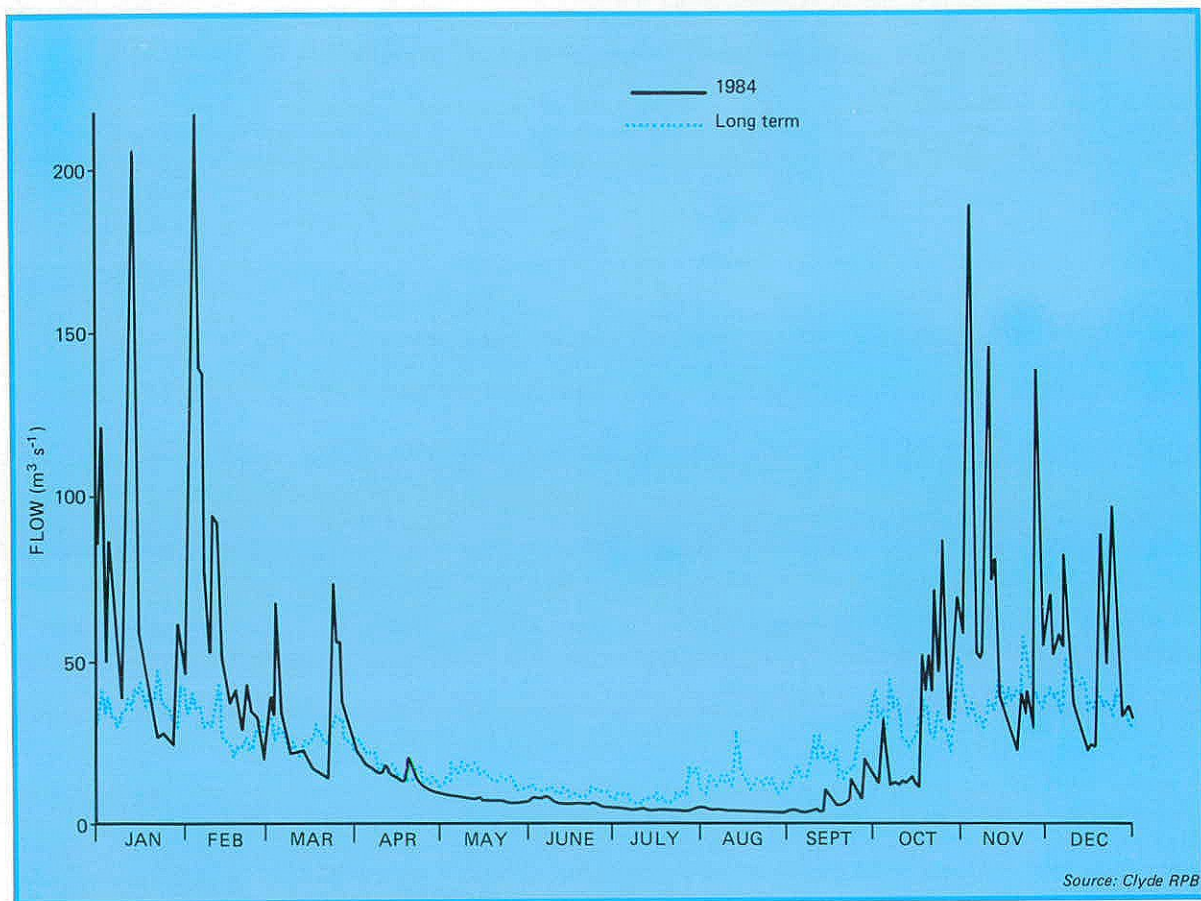


Figure 9. 1984 and average daily flows for the River Clyde at Hazelbank.

## The 1984 Drought

Consistent with the United Kingdom rainfall pattern in 1984, rivers in Scotland, Northern Ireland, Wales and the upland regions of England were the most affected by the drought. Generally these rivers drain catchments which are characterised by relatively steep slopes, thin soil cover and a very limited groundwater contribution to river flow. Consequently any rainfall deficiency quickly results in a decrease of runoff. To a limited degree, flows in the highland regions of Scotland may be sustained through the spring partly from snowmelt; the accumulation of snow in early 1984 was particularly heavy in the Cairngorms.

Monthly ranked runoff figures are presented in Table 5 for a selection of catchments throughout the United Kingdom. Exceptionally low runoff totals occurred widely in July and August. The July runoff was the lowest on record for that month in many upland catchments but, apart from Northern Ireland, the absolute minimum monthly runoff, commonly recorded in 1976, remained unchallenged. Over much of southern and central England where the 1976 drought achieved its greatest intensity, spring and summer flows in 1984 were not greatly below normal. The runoff deficits, relative to the average,

were greatest in central and southern Scotland, and the uplands of England and Wales. Table 6 serves to show that in such regions the 1984 drought was notable in terms of the accumulated spring and summer runoff totals. Echoing the end of the 1976 drought, heavy rainfall in late August, and in September, brought a swift end to the drought, and a rapid increase in river flows throughout the early weeks of the autumn.

How severe was the drought? To help answer this Table 5 provides a rough guide to the likely frequency of low river flows in particular catchments. However, it is possible to examine return periods within a more rigorous statistical framework. Analysis of rainfall data shows that the likely frequency of 1984 sequences depends on both the location and the duration being studied. This is also the case with river flows although it is important to note that, because of the natural and artificial storage available in each river basin, the frequencies of low flow events for comparable periods may differ substantially from those established from rainfall data. The frequency associated with the runoff sequence may be considerably greater, particularly for droughts of relatively short durations.

TABLE 5 MONTHLY RUNOFF IN 1984 FOR SELECTED GAUGING STATIONS

River	Gauging Station	Record Length		F	M	A	M	J		A	S	Min 1984 (Month)	POR Min (Month/Yr)	
S Tyne	Haydon Bridge	22	Runoff Rank	119 16	171 21	83 10	47 5	23 2	104 14	23 1	36 5	98 11	1.78 Jul	1.51 Aug 76
Greta	Rutherford	24		107 15	236 23	79 9	22 3	12 2	52 9	15 1	50 9	106 14	0.09 Jul	0.09 Jul 84
Derwent	Buttercrambe			132 9	130 8	94 7	81 5	59 3	67 2	64 2	57 2	92 6	4.45 Aug	3.22 Aug 76
Wharfe	Addingham			122 9	170 10	43 2	39 3	20 1	79 4	31 1	25 3	88 5	1.25 Jul	1.14 Aug 76
Derwent (Derbys)	Longbridge			147 47	166 44	72 17	60 7	55 6	60 10	55 3	48 4	50 7	4.44 Aug	3.18 Aug 52
Dove	Marston			127 20	172 21	71 6	57 3	44 2	50 3	44 2	44 4	48 5	3.49 Jul	1.91 Aug 76
Ise Brk	Harrowden			115 25	121 27	73 17	65 12	50 11	70 17	38 7	50 9	57 9	0.25 Jul	0.11 Aug 44
Stour (Essex)	Langham			167 20	162 18	70 10	69 9	83 13	200 21	125 13	125 16	120 19	1.02 Jul	0.19 Jul 76
Roding	Redbridge			116 22	86 17	84 17	63 14	100 25	100 23	80 9	80 8	100 28	0.40 Jul	0.22 Aug 76
U Lee	Waterfall			132 11	120 8	103 6	89 5	96 8	133 11	106 7	119 7	140 13	1.02 Jul	0.28 Aug 76
Thames (Naturalised)	Kingston/Teddington	102		100 62	122 50	85 48	75 36	84 53	92 55	70 34	78 36	80 56	25.37 Aug	9.96 Aug 76
Itchen	Allbrook			93 11	106 17	101 13	100 9	97 10	95 10	90 6	90 6	90 9	3.36 Sep	2.33 Aug 76
Stour	Throop Mill			140 10	104 7	68 4	70 4	64 4	65 4	58 2	55 2	43 1	2.41 Sep	1.36 Aug 76
Dart	Austins Bridge			160 25	114 15	43 2	52 4	37 5	36 3	31 2	27 2	49 8	1.17 Aug	0.71 Aug 76
Fowey	Restormel			132 11	101 8	39 1	49 1	40 1	39 1	47 1	37 2	26 1	0.45 Aug	0.34 Aug 76
Taw	Umberleigh			175 26	131 19	35 1	40 3	21 2	24 1	19 1	18 2	44 11	0.79 Aug	0.42 Aug 76
Tone	Bishops Hull			251 23	135 20	61 6	70 6	59 3	68 6	47 2	69 4	63 4	0.64 Jul	0.27 Aug 76
Severn	Bewdley			134 52	121 44	57 12	42 8	36 5	56 13	43 4	41 7	55 24	10.00 Jul	7.46 Aug 76
Yscir	Pontaryscir			176 12	122 10	31 1	39 2	27 2	59 5	32 1	25 2	73 8	0.13 Aug	0.10 Aug 76
Cynon	Abercynon			183 24	125 17	43 3	35 3	29 2	46 4	33 1	24 2	36 5	0.44 Aug	0.39 Aug 76
Leven	Newby Bridge			138 37	134 32	40 7	34 5	15 2	46 12	11 3	6 1	54 12	0.65 Aug	0.55 Jun 78
Clyde	Blairston			151 22	213 26	107 17	68 8	42 4	54 2	48 1	29 1	38 6	6.19 Aug	6.19 Aug 84
Findhorn	Forres			105 15	151 24	99 16	132 22	48 8	42 3	27 1	19 2	215 25	2.64 Aug	2.48 Aug 76
Camowen	Camowen Terrace	12		130 11	179 11	93 7	82 5	33 2	46 3	46 1	37 2	49 4	0.88 Jul	0.85 Aug 83

TABLE 6 1984 SPRING AND SUMMER RUNOFF FOR SIX SELECTED CATCHMENTS

25006				RANK	28018			
Mar-May		Jun-Aug			Mar-May		Jun-Aug	
Year	mm	Year	mm		Year	mm	Year	mm
1984	100	1976	18	1	1976	58	1976	23
1976	101	1975	27	2	1984	80	1984	36
1974	112	1984	36	3	1973	91	1975	36
1980	116	1983	46	4	1968	93	1977	40
1975	119	1964	46	5	1978	99	1983	61
1973	134	1981	52	6	1975	109	1970	62
1961	150	1977	54	7	1980	118	1980	65
1982	151	1979	57	8	1971	118	1978	66
1970	153	1968	60	9	1962	120	1974	69
1971	154	1978	64	10	1963	126	1979	70
205		84		AVERAGE	133		75	
50001				RANK	57004			
Mar-May		Jun-Aug			Mar-May		Jun-Aug	
Year	mm	Year	mm		Year	mm	Year	mm
1984	48	1976	9	1	1965	85	1976	39
1974	73	1984	10	2	1984	94	1984	41
1976	75	1975	14	3	1974	110	1975	49
1973	78	1959	18	4	1958	129	1977	60
1971	94	1961	21	5	1975	131	1978	68
1962	97	1983	22	6	1976	145	1961	69
1965	98	1962	23	7	1973	158	1960	93
1968	103	1974	26	8	1971	158	1965	97
1959	106	1964	29	9	1969	207	1983	103
1961	120	1978	30	10	1964	209	1981	104
140		48		AVERAGE	245		115	
73010				RANK	79002			
Mar-May		Jun-Aug			Mar-May		Jun-Aug	
Year	mm	Year	mm		Year	mm	Year	mm
1984	111	1984	48	1	1975	89	1984	20
1974	180	1976	94	2	1971	108	1977	39
1980	197	1983	104	3	1974	111	1975	41
1953	206	1968	111	4	1958	112	1983	49
1975	223	1977	144	5	1984	113	1973	55
1956	225	1978	147	6	1969	116	1978	56
1969	255	1975	158	7	1980	119	1976	56
1958	255	1969	159	8	1962	135	1982	58
1971	262	1973	160	9	1970	161	1974	64
1955	286	1955	164	10	1973	163	1968	70
339		251		AVERAGE	196		100	
25006 Greta at Rutherford Bridge				24 years of record				
28018 Dove at Marston on Dove				23 years of record				
50001 Taw at Umberleigh				26 years of record				
57004 Cynon at Abercynon				27 years of record				
73010 Leven at Newby Bridge				46 years of record				
79002 Nith at Friars Carse				27 years of record				

One method for assessing the severity of a low flow sequence involves the use of a flow frequency diagram. Figure 10 shows a set of flow frequency curves for the River Nith, in Dumfriesshire, for the period 1958 to 1984. The curves show the average interval in years (return period) between which the flow falls below a given discharge. The plots may be derived for the lowest daily discharge in each year or from flows averaged over longer durations. Five such plots are shown for durations of 10, 30, 60, 90 and 180 days. The procedure for producing such diagrams is summarised in the 'The 1984 Drought' (see

page 180) and is described fully in the Low Flow Studies Report <sup>1</sup>. The return period axis allows the frequency of any particular annual minimum to be estimated. For instance, the 90 day minimum flow on the River Nith in 1984 has a return period of approximately 50 years.

The above analysis was repeated for a number of rivers and Table 7 shows estimates of the return period of the 1984 drought for each of five durations. Return periods were generally 10 years or less for all stations in central and eastern England, whilst in the north and west of Great Britain the 1984 drought



was more severe. Differences in drought frequency in the same river but for different durations were generally small. In south-western England and southern Wales the highest return periods are for the 90 days duration; in north-western England and southern Scotland, return periods are highest for the longest duration. When considering the return periods presented in Table 7 it is important to bear in mind that few of the selected gauging stations are located within the areas where the drought was most severe (see Figure 4). This arises because few gauging stations with long river flow records –

necessary to assess return periods effectively – exist in such areas. Stations which do gauge the uplands, whether such as Vyrnwy (North Wales), which is an upland gauge, Newby Bridge (Cumbria), or Friars Carse (Dumfriesshire), which contain uplands in the catchment, show return periods in excess of 50 years for the 180 day duration. Many highland rivers could be expected to have experienced flows of comparable severity to the above three examples during 1984. A more detailed examination of the drought's intensity and impact is given in 'The 1984 Drought'.

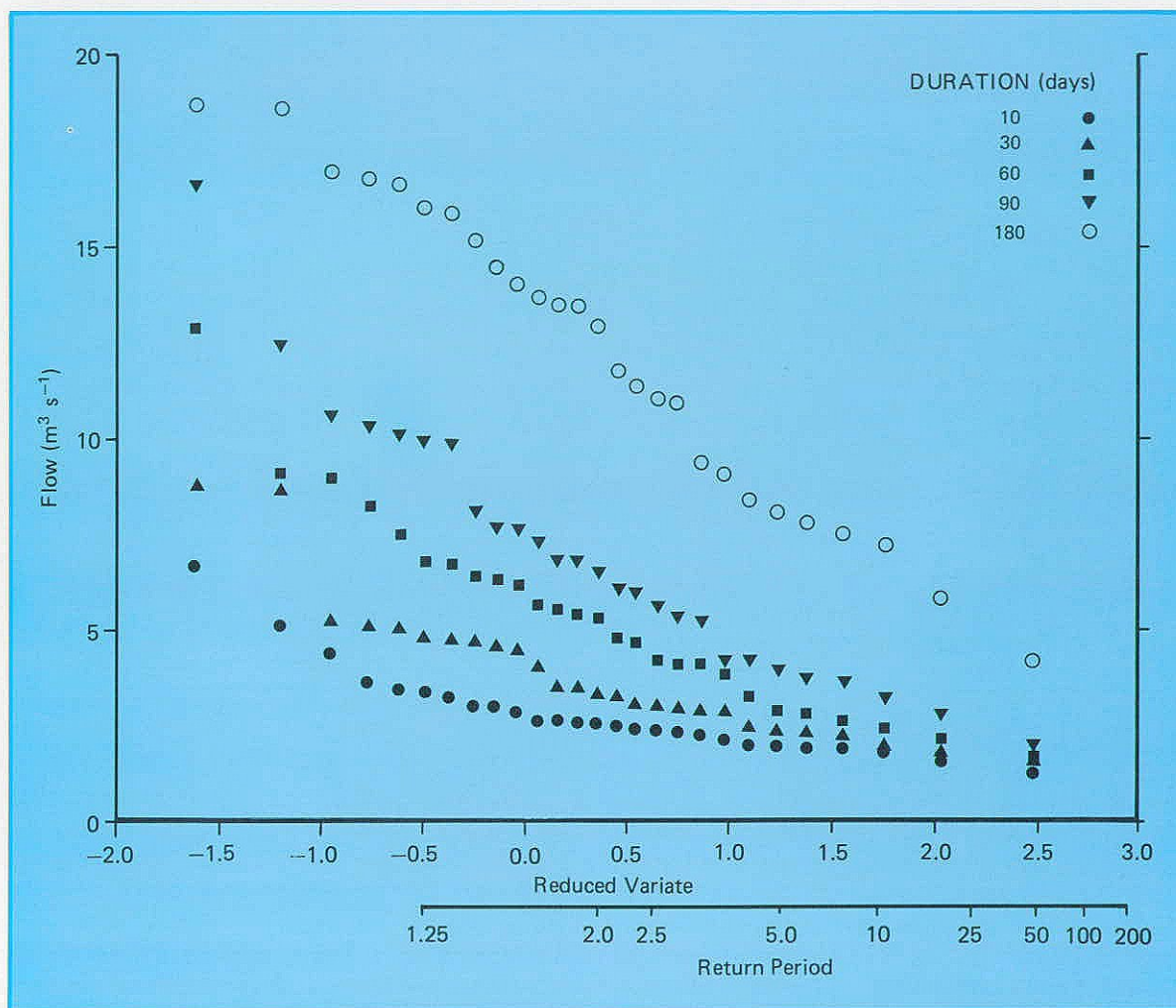


Figure 10. Flow frequency diagram for the River Nith at Friars Carse.



TABLE 7 RETURN PERIODS OF 1984 ANNUAL MINIMA

Station No	Station Name	Years of Record	Return period of annual minimum for a given duration (days)				
			10	30	60	90	180
21009	Fruid Water at Fruid	20	5	10	10	20	50
23004	South Tyne at Haydon Bridge	18	5	20	5	5	10
25006	Greta at Rutherford Bridge	21	10	10	5	10	10
27041	Derwent at Buttercrambe	11	5	5	5	5	2
28010	Derwent at Longbridge Weir	32	10	10	10	10	5
28018	Dove at Marston on Dove	18	5	5	5	10	5
32004	Ise Brook at Harrowden Old Mill	38	5	5	5	5	2
32008	Nene at Dodford	38	2	2	2	2	2
36006	Stour at Langham	22	2	2	2	2	2
37001	Roding at Redbridge	34	2	2	2	2	2
38003	Mimram at Panshanger Park	31	2	2	2	2	2
39001	Thames at Kingston/Teddington	99	2	2	2	2	2
42510	Itchen at Highbridge	24	5	2	2	2	2
43007	Stour at Throop Mill	12	5	5	5	5	5
46003	Dart at Austins Bridge	24	10	10	10	20	10
50001	Taw at Umlerleigh	23	20	10	20	20	10
52005	Tone at Bishops Hull	24	5	5	5	5	5
53018	Avon at Bathford	15	5	10	10	10	10
54001	Severn at Bewdley	62	5	5	10	20	10
54003	Vyrnwy at Vyrnwy Reservoir	54	5	5	5	20	100+
56013	Yscir at Pontaryscir	10	10	10	20	10	10
57004	Cynon at Abercynon	25	10	10	10	50	20
66011	Conwy at Cwm Llanerch	13	20	20	20	20	5
68001	Weaver at Ashbrook	44	5	5	5	5	50
72004	Lune at Caton	22	20	20	20	10	50
73010	Leven at Newby Bridge	46	5	10	50	50	100+
74006	Calder at Calder Hall	17	5	5	5	10	50
79002	Nith at Friars Carse	27	50	50	20	20	50

All return periods have been rounded

+ Return periods well in excess of 100 years.

## Runoff in 1984

At the beginning of the year rivers were in spate throughout the United Kingdom especially in Northern Ireland and the western hills of Great Britain. Rivers draining the mountains of Sutherland were in flood and new maximum January runoff records were established on the Taw, in Devon, and the Rivers Agivey and Camowen in Northern Ireland; an absolute monthly maximum, in a thirty year record, was established for the Nunningham Stream in Sussex. The Agivey recorded a second monthly peak runoff in February when unprecedented average monthly flows were also registered on the Taw in Devon and the Nith in Dumfriesshire. This high runoff further improved reservoir stocks at a time when water levels were, anyway, near to capacity in most regions of the United Kingdom. Most reservoirs had indeed been close to capacity at the end of 1983 although there were important exceptions for instance in the Lake District, at Stithians in Cornwall and several small reservoirs in central Scotland which had, of necessity, to be held below capacity to facilitate repair work.

Exceptionally steep early spring flow recessions became established in February and continued into March when runoff, generally, was in the range 50-75 per cent of normal. Particularly rapid decreases in flow rate were experienced in the west where the rivers Fowey (Cornwall), Yscir (Gwent), and the Conwy (Gwynedd) recorded new minimum runoff totals for March. Although the recessions were interrupted at the end of March in response to widespread rainfall they quickly became re-established and in many areas were to continue, with only minor breaks, until well into September. As a result of the limited early spring runoff the drawdown in reservoir levels commenced extremely early in 1984. Substantial depletions were recorded in February 1984 for reservoirs in the southern Pennines and in the south-west peninsular. Reservoirs are normally further replenished in March but in 1984 drawdown steepened in the Lake District and South Yorkshire reservoirs, and was particularly rapid in South Wales where Pontsticill, in the Taf Fechan group, was losing 4 per cent of its capacity each week. Depletion

rates increased generally through April and storage was reduced by 10 per cent of capacity at the strategically important reservoirs of Vyrnwy and the Elan Valley system in Wales, and the Derwent Valley group in Derbyshire. Water levels in Lough Neagh (Northern Ireland) were already below normal summer levels at the beginning of April. The continuing decline through the month resulted in a partial closure of sluice gates at Toome on the River Bann in an attempt to maintain the level in Lough Neagh.

The very dry April meant that responsive rivers continued to recede, sometimes at unprecedented rates. For instance, flows in the Yorkshire Wharfe were only one quarter of normal in April and runoff rates were decreasing rapidly in Scotland where the initial impact of the drought had been ameliorated, particularly in the Highlands, by meltwaters from substantial accumulations of snow. By May some water quality problems were being experienced in parts of Scotland; fish kills were reported in the Clyde River Purification Board area as a result of the large diurnal fluctuations in dissolved oxygen associated with excessive weed growth. In England, baseflow-fed rivers were less affected by the drought and discharges were often close to normal in the late spring. The river Mimram, in Hertfordshire, and the Hampshire Itchen, for example, both draining chalk catchments, remained at seasonally average levels but the River Derwent in Yorkshire, which drains the Oolitic Limestone, was 40 per cent below average discharge in May. Generally, the contrast between an immediate and decisive impact on flows in the low baseflow rivers and a far more subdued, and longer delayed, impact in areas characterised by substantial groundwater support was to become an important feature of the 1984 drought especially throughout England.

By May, reservoir stocks in northern and western England were comparable to the 1976 situation but, in many areas, the rate of depletion was greater. The dramatic fall in reservoir levels, in the drought affected areas, through the spring of 1984 is illustrated by the Taf Fechan group in South Wales where the water level had declined from capacity to little over half-full. Without the introduction of conservation measures this would have maintained supplies only until the middle of August. Gross storage at Thirlmere and Haweswater decreased by more than 20,000 megalitres in May, equivalent to about 16 per cent of total volume.

In Scotland the summer began with considerable evidence of shrinking river networks as headwater contributions, and springs, progressively failed. By July a number of small Scottish rivers and tributaries were dry and runoff in parts of the central lowlands was down to  $0.3 \text{ l s}^{-1} \text{ km}^{-2}$ ; a remarkably low rate corresponding to southern England at the end of the 1976 drought. Although some relief was afforded by thundery rainfall at the beginning of June in England

– rivers in Suffolk and Essex responding particularly strongly – the recoveries in flow were short lived and some lengthy spells of new minimum monthly runoff totals were established. The River Fowey (Cornwall) successively established new minimum runoff totals for each month over the period March–June. By June, the Taw and the Conwy were below previous minimum flow rates for the time of year. An interesting diversity within the pattern of high baseflow rivers was provided by the difference in runoff rates between the neighbouring Itchen and Test rivers in Hampshire. In common with most spring-fed rivers on the Chalk, the Itchen was only about 10 per cent below the seasonal average by July whereas the Test was approaching its 1976 minimum discharge. Rivers draining catchments in the older geological provinces were everywhere close to recorded minima. For instance, the River Nith remained below previous minimum summer flows from mid-July into September.

Many Scottish rivers have augmented low flows as a consequence of the development of hydro-electric power (HEP) schemes within the catchment. During July and August new absolute minimum flows, since the introduction of the HEP schemes, were established. In the Tay region, flows during the 1955 drought were lower but, at that time, little or no support was available from HEP impoundments. Many rivers in the Clyde Valley recorded extended sequences of daily flows below the 95 percentile exceedance flow; periods of eight weeks or more were common. The remarkably low July rainfall was accompanied by the drying-up of streams in England also. A number of water courses on Dartmoor were dry by mid-summer and the River Kent downstream of Sedgewick, in Cumbria, was recording negligible flows as a series of sink-holes intercepted the bulk of the flow. Similar effects were reported elsewhere in the limestone catchments of the Pennines.

It should be recognised that river flow measurements tend to become less precise at very low discharges. Minimal velocities and luxuriant weed growth leading to drowning of controls infer insensitive or imprecise stage-discharge relations. In addition, it is at the lower flow rates that abstractions and effluent returns have their greatest impact on the natural flow regime. Drought flows, especially in the more densely populated regions, need to be considered against an evolving pattern of water exploitation within individual catchments. Increasingly, flows in rivers used for water supply purposes may be augmented by water transferred from beyond catchment boundaries. Such factors complicate flow comparisons between drought periods and very low flows are often subjected to later revision when stage-discharge relations are changed to take account of current meter measurements undertaken during the drought.

Unprecedented runoff totals for July were recorded at rivers as widely distributed as the Agivey,

the Clyde and the Wharfe; to emphasise the magnitude and extent of the overall recession, all three rivers had established record maximum runoff totals for February. In runoff terms the drought remained of limited significance throughout much of south-eastern England. Elsewhere, faced with a continuing decline both in river flows and reservoir storage throughout the early summer, water authorities introduced measures to conserve, and augment, stocks and to reduce water demand. In Scotland, a particular difficulty was posed by the marked increase in water used for spray irrigation; this is largely uncontrolled and a significant number of small streams dried-up downstream of abstractions or became largely sustained by sewage effluent discharges. Broadly speaking, the drought achieved its greatest intensity during August when discharge rates were as low as 10 per cent of the monthly average in a number of areas. The rainfall in the second half of the month resulted in only a minimal flow response because it was mainly utilised to reduce the very high soil moisture deficits that existed throughout most of the United Kingdom.

The volatility of rainfall and runoff patterns during recent years was well demonstrated in the late summer and autumn of 1984. At the beginning of September river flows were generally at seasonally depressed levels but by the end of the month most rivers had attained above, or substantially above, average autumn discharges. The recovery continued throughout the autumn and by November localised flooding was widely reported. In Cumbria, for instance, the River Calder overtopped its banks and

the Yorkshire Aire, at Kildwick, recorded its highest November runoff on record; a monthly minimum had been registered in July. In Scotland, many rivers were in spate during November. Very high flows were recorded early in the month in rivers draining the Tay, Forth and Tweed basins. Greater than 100 mm of rainfall was recorded over 24 hours (3-4 November) in the North Esk catchment and in the headwaters of the Tweed; some two-day rainfall totals in this region had return periods estimated at over 100 years. The subsequent runoff resulted in very swift increases in river levels; the River Jed recorded a maximum rate of rise of  $400 \text{ mm h}^{-1}$  and, together with the Gala Water and Leader Water, flood levels substantially exceeded any previously recorded. In the Tay basin, a further series of notable discharges were associated with rainfall on the 10th. Snowmelt also contributed to the runoff and a flow of  $465 \text{ m}^3 \text{ s}^{-1}$ , with an estimated return period of 20 years, occurred on the North Esk.

The heavy autumn rainfall allied to diminishing rates of evaporation resulted in a rapid improvement in reservoir stocks and increased infiltration to the major aquifers. Most reservoirs had reached, or were approaching, capacity by the end of the year although a dry December postponed total replenishment in some areas; the Washburn Valley group of reservoirs in South Yorkshire, for instance, was at 80 per cent capacity entering 1985.

<sup>1</sup> Low Flow Studies Report 1980. Institute of Hydrology, Wallingford.



# REVIEW OF GROUNDWATER -

## THE GROUNDWATER SITUATION UP TO THE END OF 1984

### Summary

Since the drought of 1976 when unprecedented low water levels were recorded throughout both major and minor aquifers, water tables have generally stood at above average levels. This reflects the recent sequence of wet winters. Each of the last eight have registered above average rainfall and, consequently, relatively high rates of infiltration have allowed ample replenishment of groundwater reserves. Figure 11 shows water-year residual rainfalls (which approximate to infiltration) for three catchment areas with extensive Chalk outcrops in the south of England. Infiltration in 1983/84 was appreciably less than the preceding seven years but high infiltration rates following the December and January rainfall contrast with the minimal aquifer recharge which occurred during the winter of 1975/76.

By the spring of 1984 groundwater levels were generally above, or well above, the seasonal average. The ensuing drought was mild in the south and east of England where groundwater is a major source of public supply. Both these factors combined to ensure that the 1984 drought, in terms of groundwater storage, was a relatively minor event. Groundwaters in 1984 stood at very low levels for only a short length of time and the water table recovered rapidly following the autumn rainfall. Figure 12 serves to

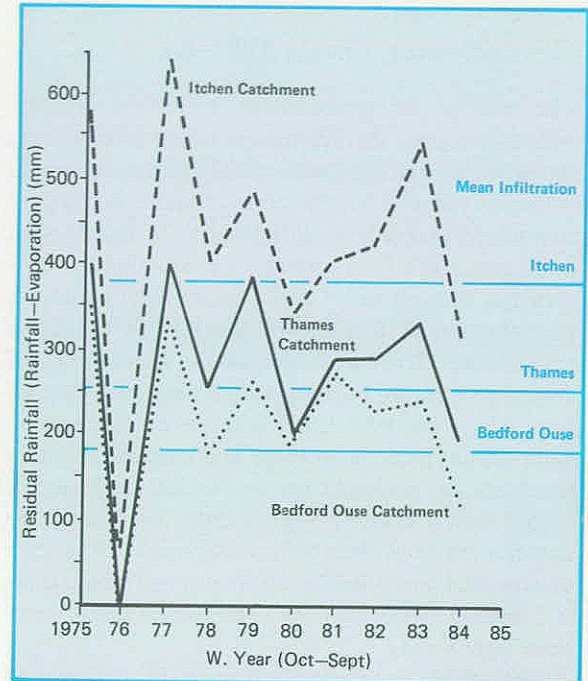


Figure 11. Residual rainfall (water-year totals) for three groundwater catchments.

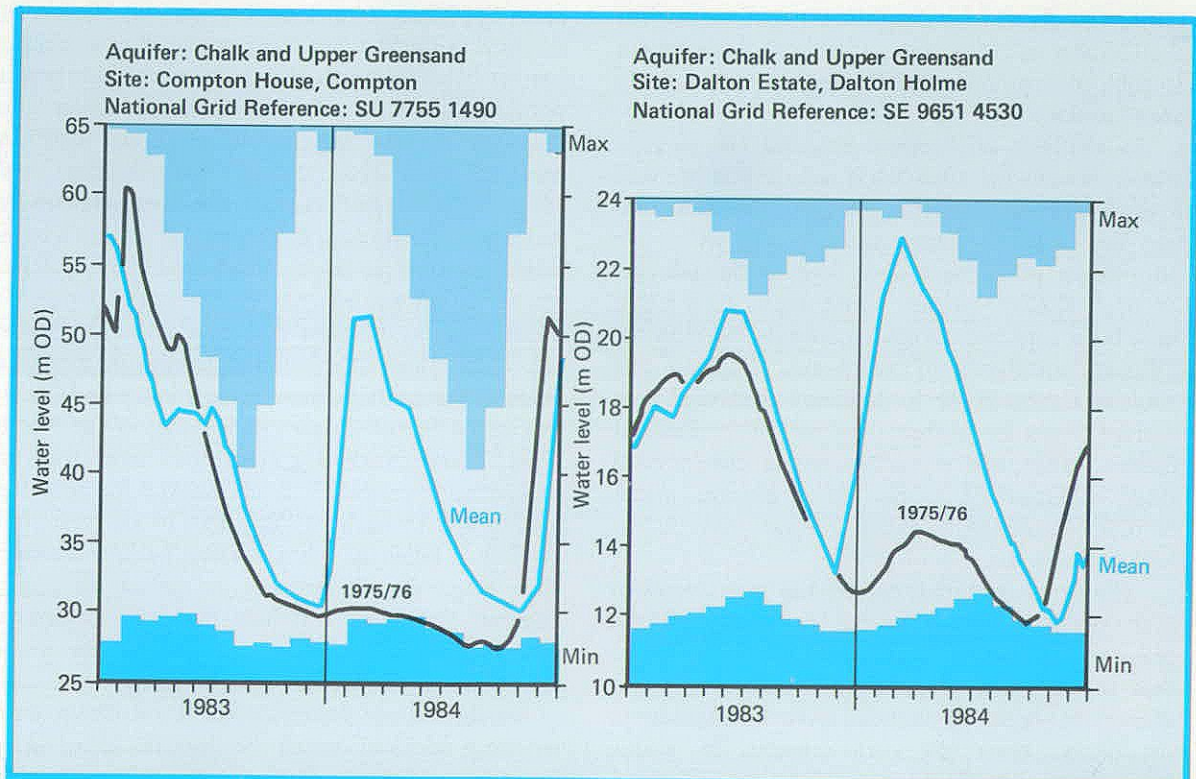


Figure 12. Groundwater levels in 1983-84 and 1975-76.

emphasise the limited nature of the 1984 groundwater drought in comparison with the extended drought of 1975/76. However, a feature of borehole and well hydrographs for 1984 is the large range in levels recorded in many areas. Such

substantial variability, relative to the normal seasonal cycle in groundwater levels, has been a persistent feature over the last decade, but in 1984 the overall range was unprecedented in many boreholes with short records.

## Groundwater Levels 1981-84

The volume of groundwater stored in aquifers reflects not only the infiltration taking place during the previous winter months but also that occurring in previous years. It is, therefore, unsafe to consider any single year wholly in isolation. In this present publication, the 1984 groundwater situation is illustrated in the context of groundwater level variations over the period 1981-1984. Figure 13 (a-m) shows groundwater level hydrographs for thirteen representative sites in England and Wales (see map on page 165); the 1981-1984 levels are illustrated in comparison with the average and extreme monthly levels for the period of record. Where the period of record is less than ten years, only the hydrograph constructed from observed levels is shown. The trace of observed water levels is discontinued where there is a break between successive measurements of more than eight weeks.

The 1983/84 winter (October to March) rainfall in Scotland was generally above average save for the Clyde and Forth River Purification Board areas where it was near, or below, average. In England and Wales, the winter rainfall was above average in the north, but was close to the mean for the area south of the Humber and the Mersey (Table 8). In Northern Ireland, the winter rainfall was also appreciably above average.

In southern and central England, the average winter rainfall for 1983/84 is reflected in the well hydrographs for Compton, Rockley, Therfield Rectory and Washpit Farm (in the Chalk) where the post-winter peaks were also close to the average, although Rockley peaked rather higher than might have been expected. Similarly, Bussels No. 7 in the Triassic sandstones of south-west England and Ampney Crucis in the Jurassic oolites showed near average peaks. In northern England, in the Chalk at Dalton Holme, and in the Magnesian Limestone at Peggy Ellerton Farm, the above average winter rainfall culminated in above average peaks in the well hydrographs.

The summer rainfall pattern has been described in the review of the weather but for those reading the groundwater section in isolation, it may be stated that the April to September rainfall was below average in almost all districts; a common feature in the period since the 1976 drought. In Wales, Scotland, western England and in Northern Ireland, it was below 70 per cent of the mean. In eastern England, summer rainfall exceeded 80 per cent of

the mean only in the Anglian Water Authority area (92 per cent). Even with most reservoirs full after the winter, water shortages were felt as early as April in the Welsh, North West and South West Water Authority areas. By mid-summer, although somewhat less severe than that of the summer of 1976, there was a general drought.

In groundwater terms, the 1984 drought was of limited significance. With the more important aquifers receiving their normal natural replenishment during the previous winter, and with summer recharge rarely occurring in any case, the groundwater resources were well up to the average, and in the north, above average. In the Chalk and in the Permo-Triassic sandstones, the well hydrographs show a near normal recession in groundwater levels, steepening a little after mid-summer to approach, in a few cases, the recorded minima; this increased rate of recession is partly due to a greater usage of groundwater (where available) to offset the shortage in surface resources. By November groundwater levels at Dalton Holme were approaching those registered during the drought years of 1905, 1921, 1949, 1959 and 1976. Very low autumn levels also obtained at Rockley but they are placed in a suitable context by comparison with 1976 when there was a virtual absence of standing water throughout the year; the seventh occasion on which the well has dried-up since 1933. In the lesser aquifers, the effects of the low rainfall are somewhat more marked; in the Jurassic limestones at Ampney Crucis levels fell close to the recorded minima (in an area where rainfall was less than 70 per cent of the mean) while levels at the New Red Lion fell only slightly below the mean (the summer rainfall in this area being only slightly below average). At the Dale Brow site in the Permo-Triassic sandstones of the North West Water Authority, technical difficulties in measuring groundwater levels masked much of the hydrograph through the first half of the year, but levels had fallen to below average by late summer. The Magnesian Limestone, as shown by Peggy Ellerton Farm, had benefited from two successive winters of plentiful recharge, and groundwater levels stayed above average through the year.

In those areas where surface water stocks were seriously depleted during the drought, minor aquifers assumed a greater importance. Their potential to meet local or district water supply needs was exploited in many areas. Typically, groundwater



levels in the less developed aquifers were about, or just below, average in the winter of 1983/84. Minimum levels recorded in the ensuing drought were generally well above those registered in 1976 except in those few localities where recharge in 1984 was delayed into late autumn.

During the last three months of 1984, rainfall was very slightly above average in northern England and in the Anglian Water Authority district. Elsewhere, it was well above average. Groundwater levels were rising through this period, and by the end of December the well hydrographs were generally close to, or above, average levels. At Dalton Holme,

levels were rising but had not yet reached the mean. At Eastwick Farm, there appears to have been a regional fall of about 0.5 metre through the whole year, with levels well below the mean in December; the record for future years will be needed to confirm this trend.

One noteworthy feature appears in the well hydrographs for Espland Hill, Dalton Holme, the New Red Lion, Ampney Crucis, Rockley, Bussels No. 7 and Compton. The annual minima show a falling trend over the period 1981–1984. As yet, there is insufficient information to establish the cause of this trend, but it will be monitored in future years.

TABLE 8. WINTER AND SUMMER RAINFALL IN THE UNITED KINGDOM 1983–4

Water Authority area	Winter Rainfall 1983–84	Summer Rainfall 1984	Rainfall Oct–Dec 1984	River Purification Board area			
North West	714 mm 114%	392 mm 66%	447 mm 125%	Highland	1225 mm 127%	517 mm 68%	696 mm 126%
Northumbrian	492 mm 111%	294 mm 67%	298 mm 122%	North East	597 mm 113%	322 mm 65%	471 mm 156%
Severn Trent	406 mm 105%	297 mm 77%	251 mm 117%	Tay	863 mm 129%	312 mm 53%	595 mm 159%
Yorkshire	527 mm 124%	297 mm 73%	266 mm 115%	Forth	541 mm 95%	310 mm 56%	510 mm 158%
Anglian	299 mm 99%	284 mm 92%	170 mm 102%	Clyde	796 mm 87%	480 mm 64%	717 mm 134%
Thames	365 mm 102%	273 mm 79%	247 mm 122%	Tweed	588 mm 117%	270 mm 54%	391 mm 139%
Southern	457 mm 104%	243 mm 68%	332 mm 131%	Solway	869 mm 114%	355 mm 54%	583 mm 133%
South West	738 mm 108%	335 mm 66%	469 mm 123%	Northern	673 mm	333 mm	339 mm
Welsh	745 mm 101%	385 mm 64%	546 mm 131%	Ireland	118%	64%	105%

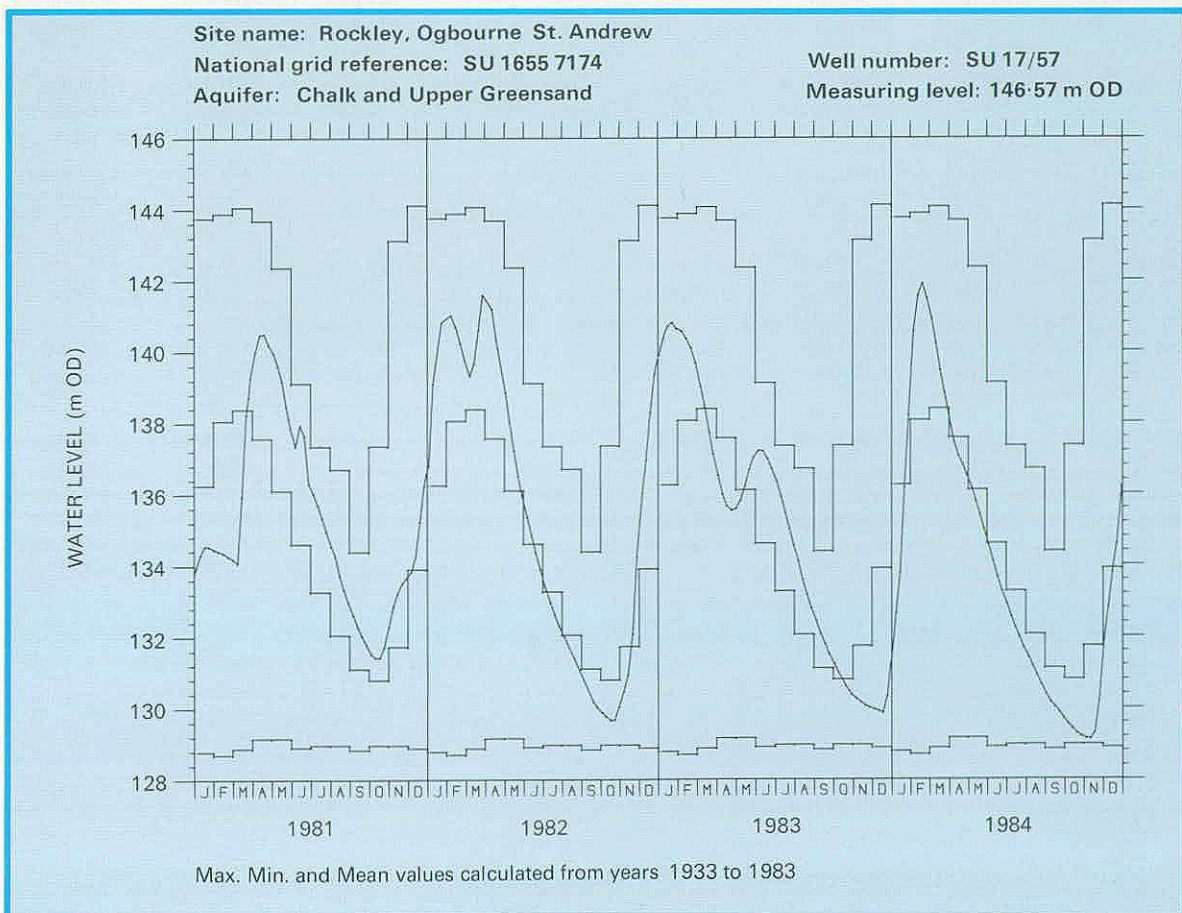
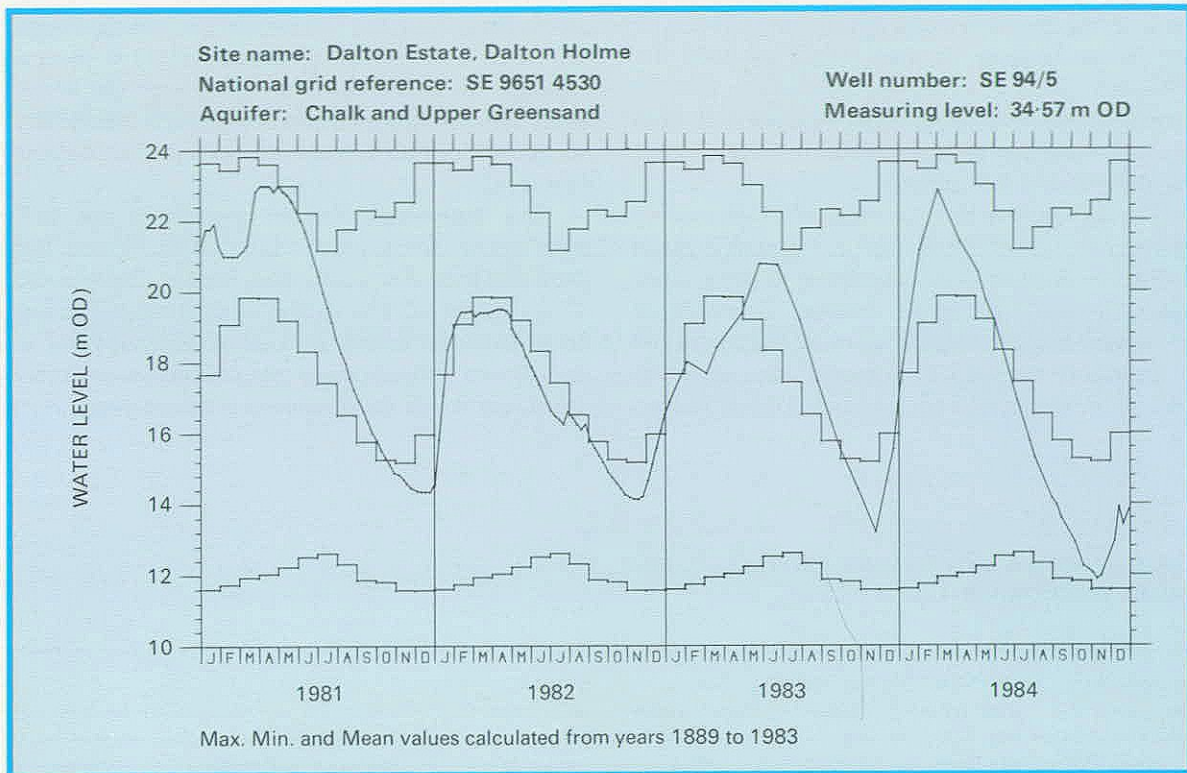


Figure 13. Hydrographs of groundwater level fluctuations 1981-84.



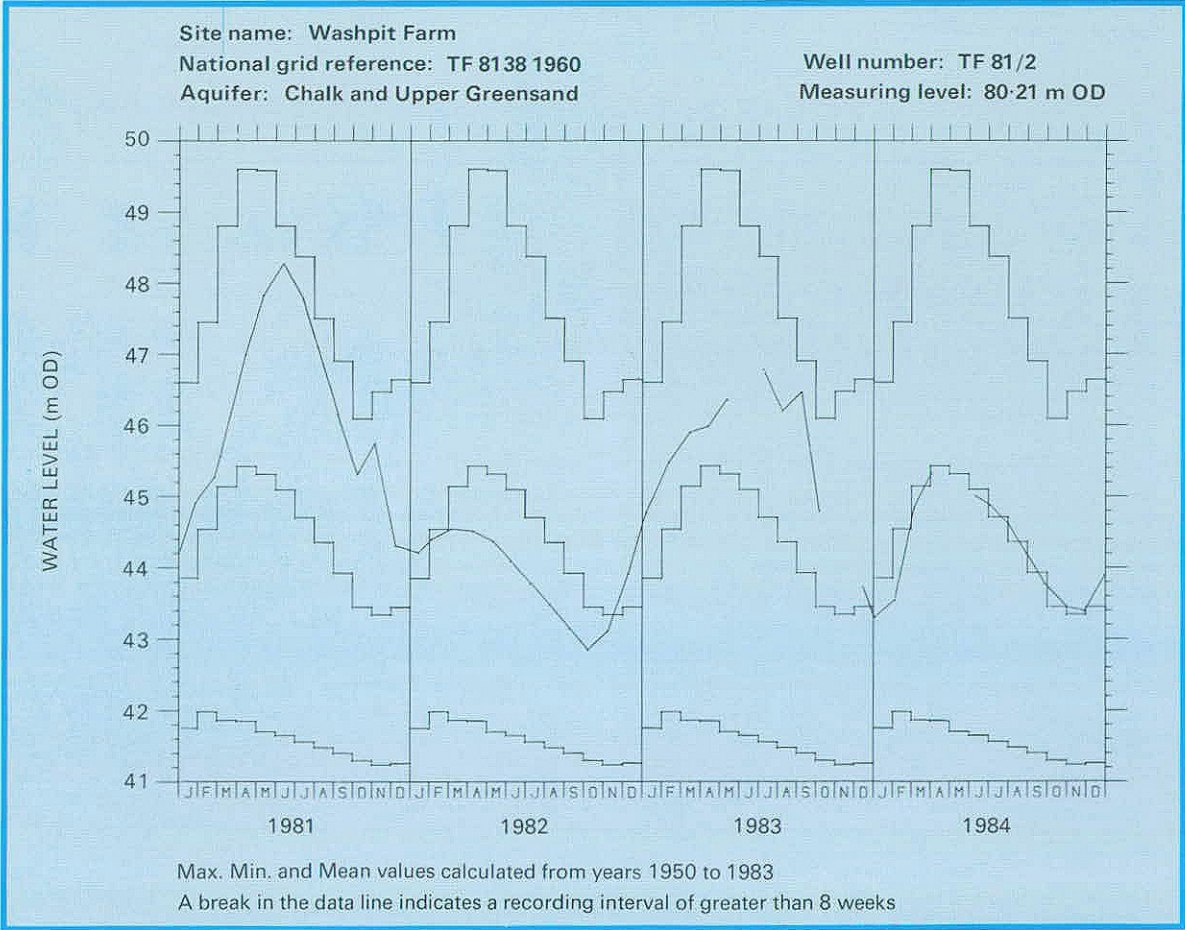
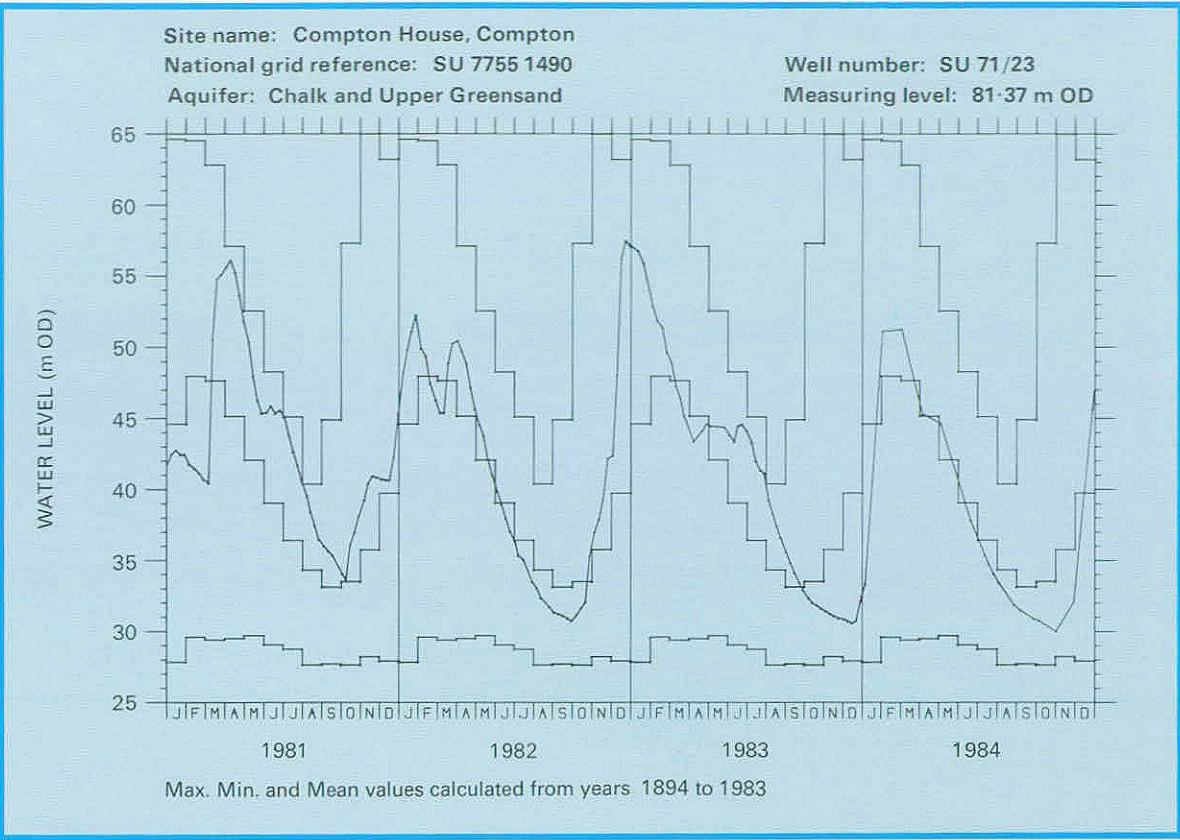


Figure 13—(continued).



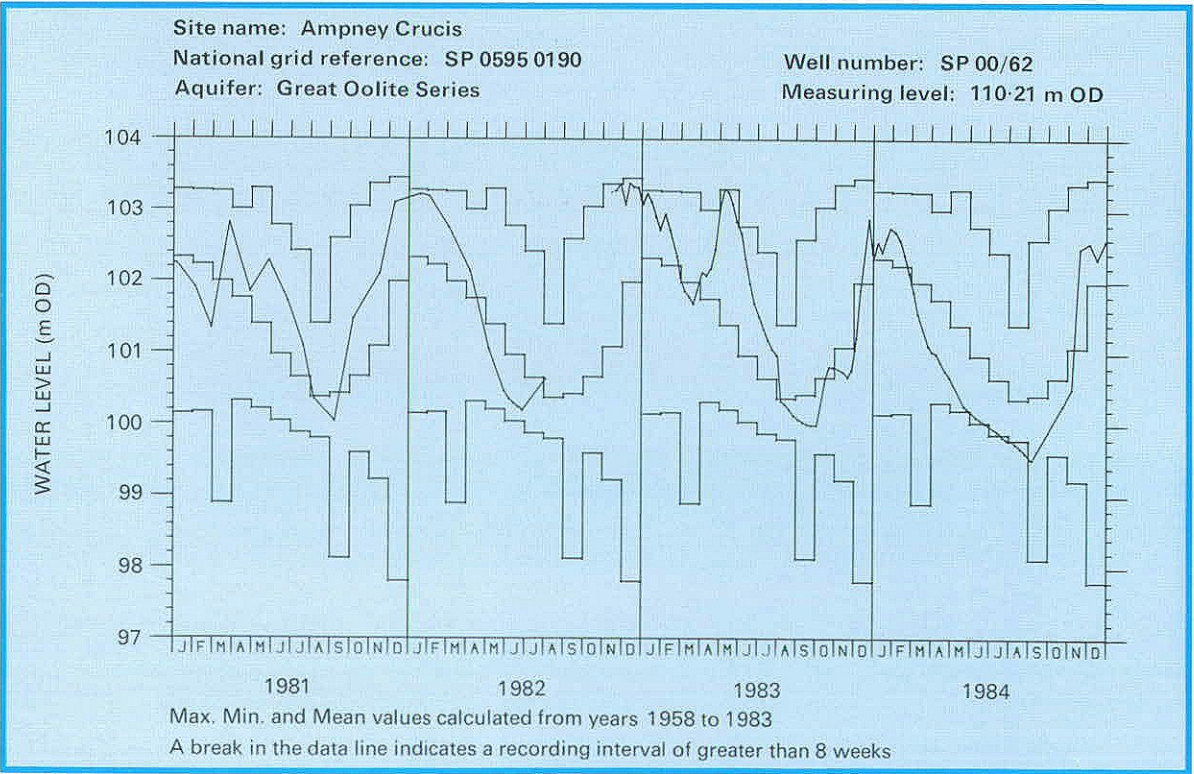
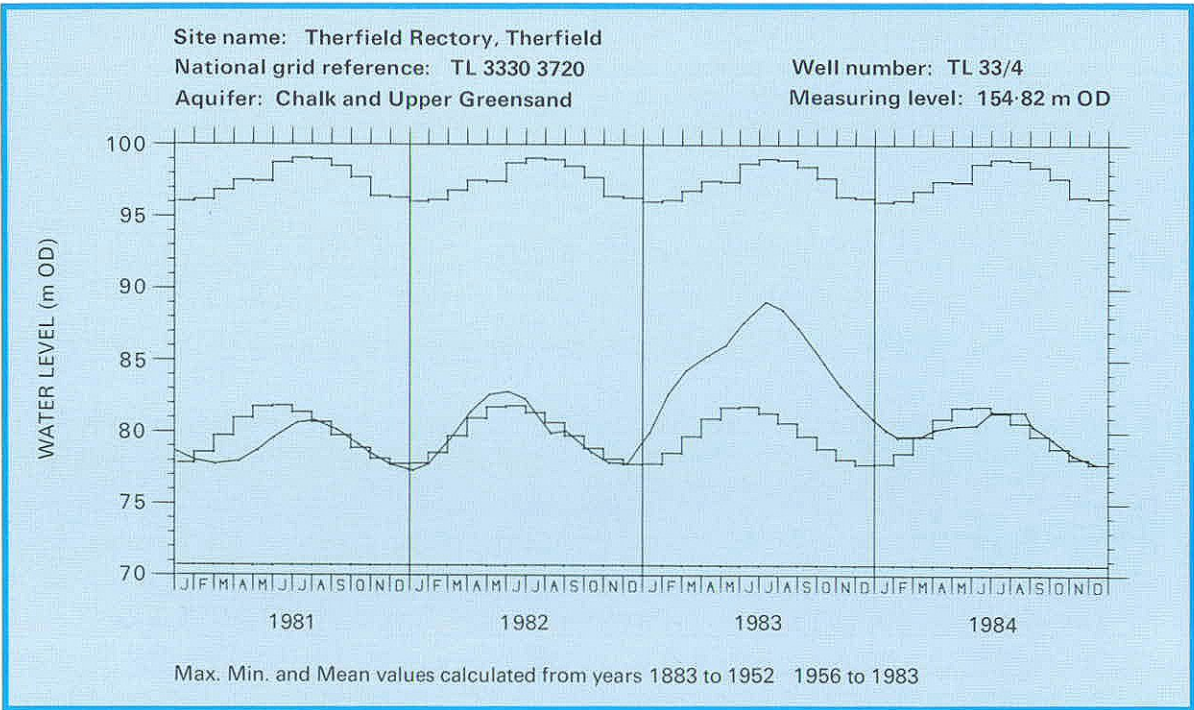


Figure 13—(continued).



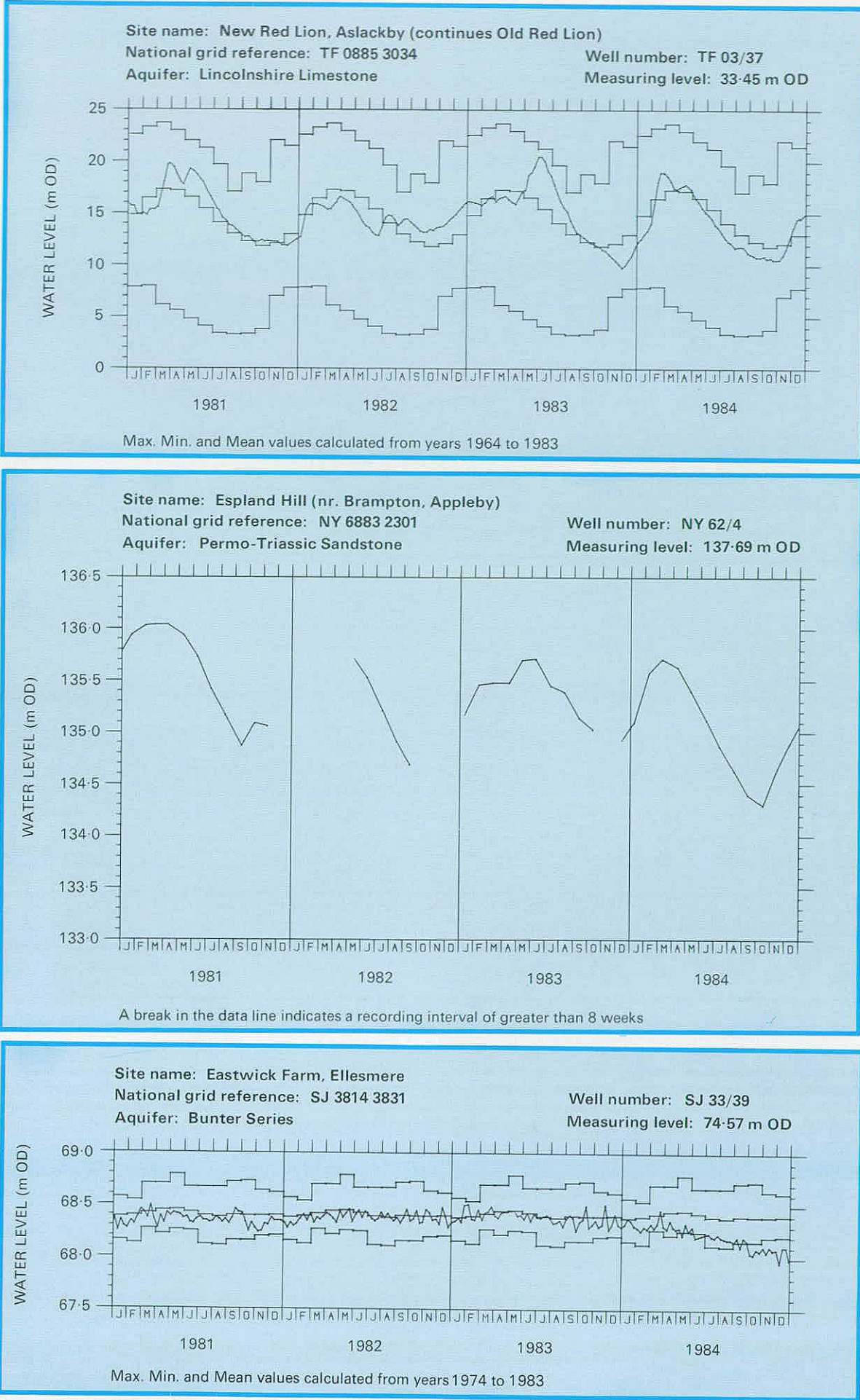


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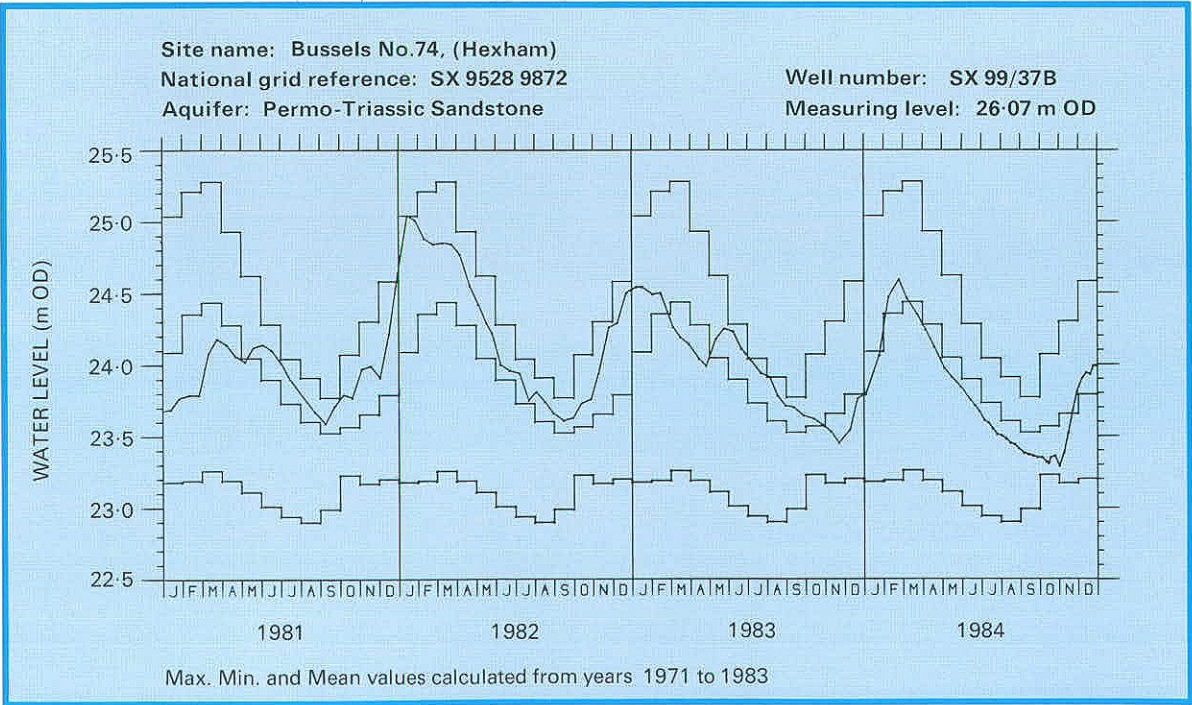
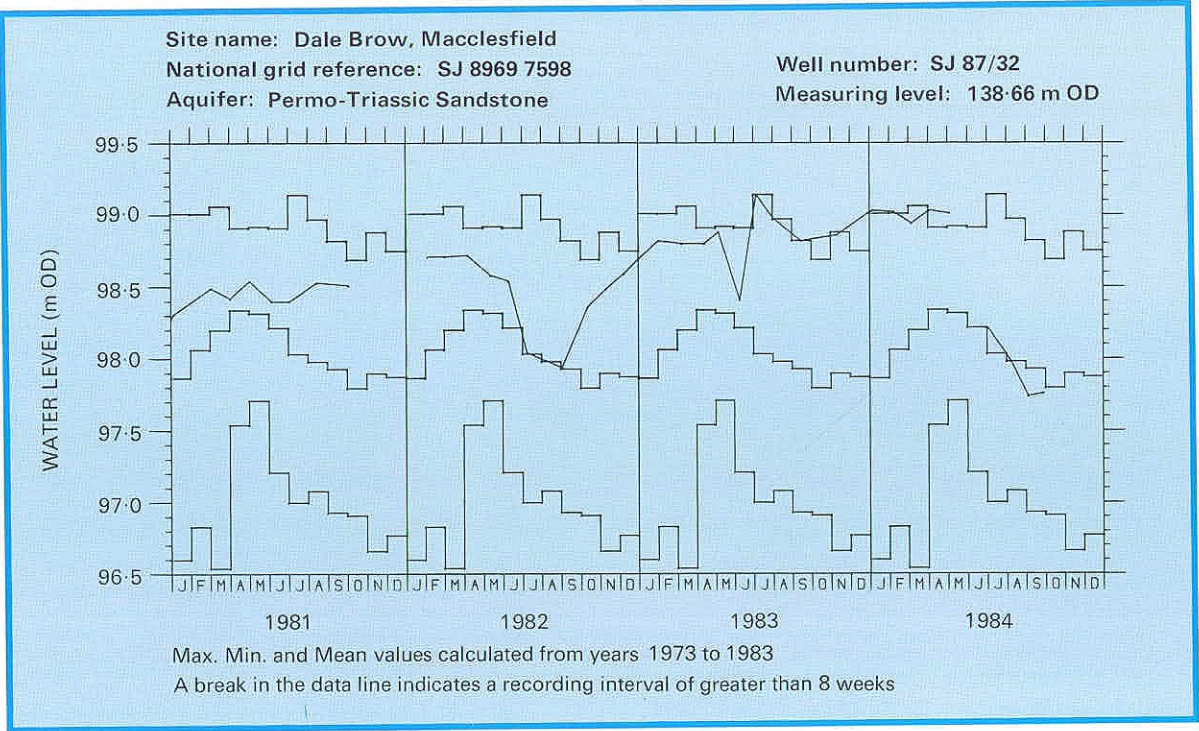


Figure 13—(continued).



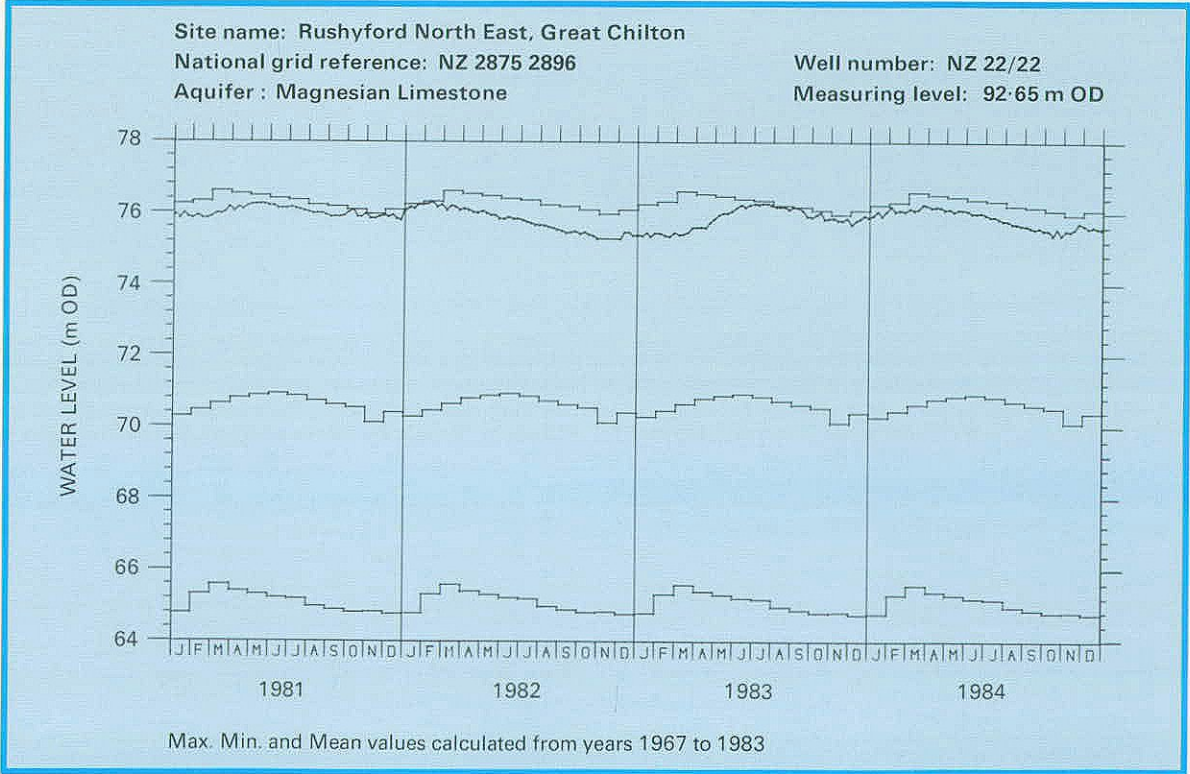
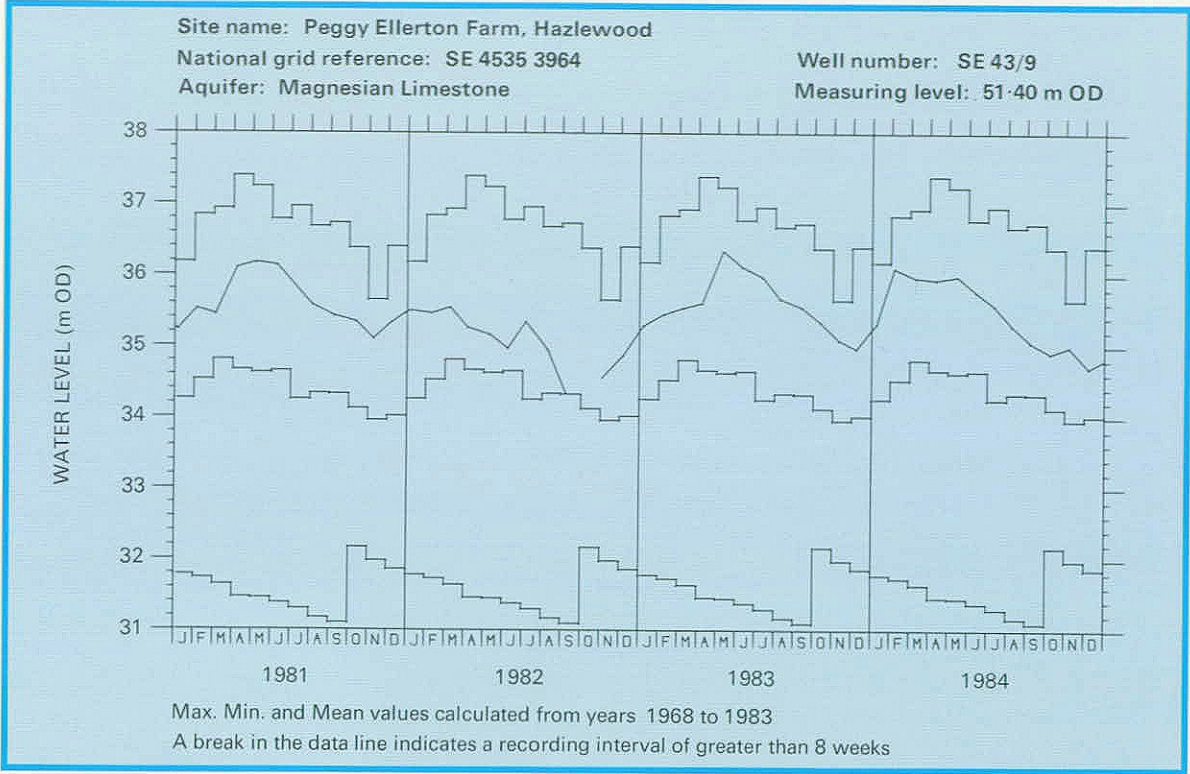


Figure 13—(continued).



## Computation and Accuracy of Gauged Flows

Gauged flows are generally calculated by the conversion of the record of stage, or water level, using a stage-discharge relation, often referred to as the rating or calibration. Stage is measured and recorded against time by instruments usually actuated by a float in a stilling well. The instrument records the level either continuously by pen and chart, or digitally on punched-tape or solid-state logger, generally at regular (normally 15 minute) intervals. This stage data is normally collected routinely, typically at weekly or monthly intervals, and taken to a regional centre for processing. At some gauging stations provision is made for the routine transmission of river levels directly to the processing centre, by telephone line or, less commonly, by radio; on occasions, satellites have been used to receive and re-transmit the radio signal. Often, both digital and analogue recording devices are deployed at gauging stations to provide a measure of security against loss of record caused by instrument malfunction.

The stage-discharge relation is obtained either by installing a gauging structure, usually a weir or flume with known hydraulic characteristics, or by measuring the stream velocity and cross-sectional area at points throughout the range of flow at a site characterised by its ability to maintain the relationship.

The accuracy of the processed gauged flows therefore depends upon several factors:

- i. accuracy and reliability in measuring and recording water levels,
- ii. accuracy and reliability of the derived stage-discharge relation, and
- iii. concurrency of revised ratings and the stage record with respect to changes in the station control.

Flow data from ultrasonic gauging stations are computed on-site where the times are measured for acoustic pulses to traverse a river section along an oblique path in both directions. The mean river velocity is related to the difference in the two timings and the flow is then assessed using the river's cross-sectional area. Accurate computed flows can be expected for stable river sections and within a range in stage that permits good estimates of mean channel velocity to be derived from a velocity traverse set at a single depth, or at a series of fixed depths.

Flow data from electromagnetic gauging stations may also be computed on-site. The technique requires the measurement of the electromotive force (emf) induced in flowing water as it cuts a vertical magnetic field generated by means of a large coil

buried beneath the river bed, or constructed above it. This emf is sensed by electrodes at each side of the river and is directly proportional to the average velocity in the cross-section.

British and International Standards are followed as far as possible in the design, installation and operation of gauging stations. Most of these Standards include a section devoted to accuracy, which results in recommendations for reducing uncertainties in discharge measurements and for estimating the extent of the uncertainties which do arise.

The national surface water archive exists to provide not only a central database and retrieval service but also an extra level of hydrological validation. To further this aim, project staff at the Institute liaise with their counterparts in the water industry on a regional basis and, by visiting gauging stations and data processing centres, are acquiring the necessary knowledge of local conditions and problems.

## Scope of Flow Data Tabulations

River flow data are presented in two parts. In the first, daily mean gauged flows are tabulated for 50 gauging stations; daily naturalised flows (see p. 38) are also tabulated for the River Thames at Kingston. Monthly flow data for a further 160 gauging stations are given in the second part. The featured gauging stations have been selected to give a broad geographical coverage and to typify a wide range of catchment types found throughout the United Kingdom. A map (Fig. 14) is provided on page 42 to assist in locating the gauging stations featured in this section.

For each gauging station, basic reference information is given together with comparative average, and extreme river flow and rainfall figures based upon the archived record.

Explanatory notes precede the two sets of tables and will assist in the interpretation of particular items. The notes relating to the daily flow tables are given below; those relating to the monthly data are given on page 95.

## Part (i) – the daily mean flow tabulations

### *Station Number*

The gauging station number is a unique six digit reference number which serves as the primary identifier of the station record on the surface water archive. The first digit is a regional identifier being 0 for mainland Britain, 1 for the islands around Britain and 2 for Ireland. This is followed by the hydrometric area number given in the second and third digits.



Hydrometric areas are either integral river catchments having one or more outlets to the sea or tidal estuary, or, for convenience, they may include several contiguous river catchments having topographical similarity with separate tidal outlets. In Britain they are numbered from 1 to 97 in clockwise order around the coastline commencing in north-east Scotland: Ireland has a unified numbering system from 1 to 40, commencing with the River Foyle catchment and circulating clockwise; not all Irish hydrometric areas, however, have an outlet directly on the coast.

The numbers and boundaries of the United Kingdom hydrometric areas are shown in the frontispiece.

The practice followed in the earlier Surface Water: United Kingdom publications of using the fourth digit to denote certain characteristics of a gauging station, or its flow record, has been discontinued. Normally this function is now performed by the station description (see below).

The fourth, fifth and sixth digits comprise the number, usually allocated chronologically, of the gauging station within the hydrometric area.

Where the leading digit, or digits, are zero they may be omitted giving rise to apparent four or five-digit reference numbers.

### *Measuring Authority*

An abbreviation referencing the organisation responsible for the operation of the gauging station. A list of measuring authority codes together with the corresponding names and addresses for all organisations currently contributing data to the surface water archive appears on pages 178 and 179.

### *Grid Reference*

Standard two-letter and six figure map reference using the National Grid in Great Britain and the Irish Grid in Northern Ireland. (The Irish Grid has only one prefix letter but it is common practice to precede it with the letter I to make the identification clear.)

### *Catchment Area*

The surface catchment area in the horizontal plane of the gauging station in square kilometres. There are a few gauging stations where, because of geological considerations, the groundwater catchment area differs appreciably from the surface water catchment area and, in consequence, the baseflow, whether augmented or diminished, may cause the runoff values to appear anomalous.

### *First Year*

The year in which the station started producing daily mean flow data, usually the first year for which data

are held on the surface water archive. Earlier data, often of a sporadic nature, or of poorer quality, may occasionally be available from the measuring authorities or other sources.

### *Level of Station*

The level of the station is, generally, the level of the gauge zero in metres above Ordnance Datum, or above Malin Head Datum for stations in Northern Ireland. Although gauge zero is usually closely related to zero discharge, it is the practice in some areas for an arbitrary height, typically one metre, to be added to the level of the lowest crest of a measuring structure to avoid the possibility of false recording of negative values by some digital recorders.

### *Maximum Altitude*

The level to the nearest metre of the highest point in the catchment area.

### *Table of daily mean gauged (or naturalised) discharges*

The mean flow in cubic metres per second (cumecs) in a water-day, normally 0900 am to 0900 am. The naturalised discharge is the gauged discharge adjusted to take account of net abstractions and discharges upstream of the gauging station.

**Peak Flow:** The highest flow in cubic metres per second for each month. The day of peak generally refers to the water-day but the calendar day is also used, particularly in Scotland. Normally the peak flow corresponds to the highest fifteen minute flow where water levels are recorded digitally, or the highest instantaneous flow associated with maximum stage where analogue recorders are used.

**Runoff:** The notional depth of water in millimetres over the catchment equivalent to the mean flow for the month as measured at the gauging station. It is computed using the relationship:

$$\text{Runoff in mm} = \frac{\text{Average Flow in Cumecs} \times 86.4 \times n}{\text{Catchment Area (km}^2\text{)}}$$

where  $n$  is the number of days in the month. The runoff total is rounded to the nearest millimetre.

Runoff is computed on the basis of naturalised flows (see 'Factors affecting the flow regime') for the minority of catchments where daily, or monthly, naturalised flows are available.

**Rainfall:** The rainfall over the catchment in millimetres for each month. It is derived by first obtaining the long-period (1941-70) average annual

rainfall for each catchment. Then, for each of a selected number of raingauges chosen to represent the catchment, the monthly rainfall is expressed as a percentage of its annual average rainfall. The percentage values of rainfall for each raingauge are summed and their mean obtained to give a catchment percentage value for the month, which is then converted to monthly mean rainfall. Accuracy therefore depends largely on the reliability of the assessment of the areal annual average and on the adequacy of the network of raingauges used to represent an area. Where, as for instance in some small mountainous catchments, raingauges are few and their siting and exposure is not ideal, great precision in the areal rainfall estimates cannot be expected.

### *Statistics of monthly data for previous record*

Only complete monthly records are used in the derivation of the average, low and high values of river flow, runoff and rainfall. The rainfall and runoff statistics are normally directly comparable but full equivalence will not obtain where the pattern of missing data differs between the archived rainfall and runoff data sets.

Where applicable, a guide to the amount of missing data is given following the section heading.

### *Summary statistics*

Current year flow statistics are tabulated alongside the corresponding values for the previous record. Where appropriate, the current year figures are expressed as a percentage of the preceding average.

**Mean Flow:** The average of all available daily mean flows during the term indicated.

**Lowest Daily Mean:** The value and date of occurrence of the lowest mean flow in cubic metres per second in a water-day during the term indicated. In a record in which the value recurs, the date is that of the last occasion.

It should be emphasised that river flow measurement tends to become more imprecise at very low discharges. Very low velocities, heavy weed growth and the insensitivity of stage-discharge relations combine with the difficulty of accurately measuring limited water depths to reduce the accuracy of computed flows.

The reliability of both the lowest daily mean flow and the 95 percentile flows (see below) as representative measures of low flow must be considered carefully and the values used with caution in view of the increasing proportional variability between the natural flow and the artificial influences, such as abstractions, discharges, and storage changes as the river flow diminishes.

**Peak:** The peak flow in cubic metres per second during the term indicated. The date of occurrence, normally the water-day, is also indicated. Generally, the peak flows are derived from the record of monthly instantaneous maximum flows stored on the surface water archive. As a result of particular flow-measurement difficulties in the flood range, this peak flow series is often incomplete. Consequently, in some cases, the peak flow from the previous period of record has been abstracted from Volume IV of the Flood Studies Report<sup>1</sup>. Reference to this report should be made to check for historical flood events which may exceed the peak falling within the gauged flow record.

**10 Percentile:** The flow in cubic metres per second which was equalled or exceeded for 10 per cent of the specified term - a high flow parameter which, when compared with the mean may give a measure of the variability, or 'flashiness', of the flow regime. The 10 percentile is computed using daily flow data only for those years with ten days, or less, missing on the surface water archive.

**50 Percentile:** The flow in cubic metres per second which was equalled or exceeded for 50 per cent of the specified term - the median value. The same conditions for completeness of the annual records apply as for the 10 percentile flow.

**95 Percentile:** The flow in cubic metres per second which was equalled or exceeded for 95 per cent of the specified term - a significant low flow parameter relevant in the assessment of river water quality consent conditions. The same conditions for completeness of the annual records apply as for the 10 percentile flow.

### *Factors affecting flow regime*

An indication of the various types of abstractions from, and discharges to, the river operating within the catchment which alter the natural flow is given by a standard set of abbreviated descriptions. In Part (ii) - the monthly flow data - each description is shortened to a code letter. An explanation of the abbreviated descriptions and the code letters follows. With the exception of the induced loss in surface flow resulting from underlying groundwater abstraction, these codes and descriptions refer to quantifiable variations and do not include the progressive, and difficult to measure, modifications in the regime related to land-use changes.

<sup>1</sup>Flood Studies Report 1975. Natural Environment Research Council (5 vols.).

CODE	EXPLANATION	ABBREVIATED DESCRIPTION
N	Natural, i.e., there are no abstractions and discharges or the variation due to them is so limited that the gauged flow is within 10% of the natural flow at, or in excess of, the 95 percentile flow.	Natural within 10% at the 95 percentile flow.
	Storage or impounding reservoir. Natural river flows will be affected by water stored in a reservoir situated in, and supplied from, the catchment above the gauging station.	Reservoirs in catchment.
R	Regulated river. Under certain flow conditions the river will be augmented from surface water and/or groundwater storage upstream of the gauging station.	Augmentation from surface water and/or groundwater.
	Public water supplies. Natural river flows are reduced by the quantity abstracted from a reservoir or by a river intake if the water is conveyed outside the gauging station's catchment area.	Abstraction for public water supply.
	Groundwater abstraction. Natural river flow may be reduced or augmented by groundwater abstraction or recharge. This category includes catchments where mine-water discharges influence the flow regime.	Flows influenced by groundwater abstraction and/or recharge.
E	Effluent return. Outflows from sewage treatment works will augment the river flow if the effluents originate from outside the catchment.	Augmentation from effluent returns.
	Industrial and agricultural abstractions. Direct industrial and agricultural abstractions from surface water and from groundwater may reduce the natural river flow.	Flow reduced by industrial and/or agricultural abstraction.
H	Hydro-electric power. The river flow is regulated to suit the need for power generation.	Regulation for HEP.

Except for a small set of gauging stations for which the net variation, i.e. the sum of abstractions and discharges, is assessed in order to derive the 'naturalised' flow from the gauged flow (see page 38), the record of individual abstractions, discharges and changes in storage as indicated in the code above is not held centrally.

### *Station description*

A concise description of the gauging station. When appropriate, details of the station history are in-

cluded together with any factors limiting the availability or accuracy of the associated river flow record.

### *Comment*

A summary of any important factors influencing the accuracy of the current year's flow data specifically; for instance, the reconstruction of a gauging station or the use of extrapolated stage-discharge relations during periods of very low or very high flows.



# STATIONS FOR WHICH DAILY OR MONTHLY DATA ARE GIVEN IN THE RIVER FLOW SECTION

STATION NUMBER	RIVER NAME AND STATION NAME	SEE PAGE	STATION NUMBER	RIVER NAME AND STATION NAME	SEE PAGE
D 3003	OYKEL AT EASTER TURNAIG	44	28018	DOVE AT MARSTON ON DOVE	105
4001	CONON AT MOY BRIDGE	96	28024	WREAKE AT SYSTON MILL	105
7002	FINDHORN AT FORRES	96	28031	MANIFOLD AT ILAM	106
D 8006	SPEY AT BOAT O BRIG	45	28039	REA AT CALTHORPE PARK	106
9002	DEVERON AT MUIRESK	96	28080	TAME AT LEA MARSTON LAKES	106
10002	UGIE AT INVERUGIE	96	28082	SOAR AT LITTLETHORPE	106
11001	DON AT PARKHILL	97	29003	LUD AT LOUTH	107
D 12001	DEE AT WOODEND	46	D 30001	WITHAM AT CLAYPOLE MILL	60
13007	NORTH ESK AT LOGIE MILL	97	30004	PARTNEY LYMN AT PARTNEY MILL	107
13008	SOUTH ESK AT BRECHIN	97	31002	GLEN AT KATES BRIDGE	107
14001	EDEN AT KEMBACK	97	31007	WELLAND AT BARROWDEN	107
D 15006	TAY AT BALLATHIE	47	D 32001	NENE AT ORTON	61
16003	RUCHILL WATER AT CULTYBRAGGAN	98	32003	HARPERS BROOK AT OLD MILL	
16004	EARN AT FORTEVIOT BRIDGE	98		BRIDGE	108
17002	LEVEN AT LEVEN	98	32004	ISE BROOK AT HARROWDEN OLD	
17005	AVON AT POLMOTHILL	98		MILL	108
18003	TEITH AT BRIDGE OF TEITH	99	D 33002	BEDFORD OUSE AT BEDFORD	62
18005	ALLAN WATER AT BRIDGE OF ALLAN	99	33003	CAM AT BOTTISHAM	108
D 19001	ALMOND AT CRAIGIEHALL	48	33004	LARK AT ISLEHAM	108
20001	TYNE AT EAST LINTON	99	33012	KYM AT MEAGRE FARM	109
21006	TWEED AT BOLESIDE	99	33013	SAPISTON AT RECTORY BRIDGE	109
D 21009	TWEED AT NORHAM	49	33024	CAM AT DERNFORD	109
21012	TEVIOT AT HAWICK	100	34001	YARE AT COLNEY	109
21018	LYNE WATER AT LYNE STATION	100	34002	TAS AT SHOTESHAM	110
21022	WHITEADDER WATER AT HUTTON CASTLE	100	D 34006	WAVENEY AT NEEDHAM MILL	63
D 22001	COQUET AT MORWICK	50	34018	STIFFKEY AT WARHAM ALL SAINTS	110
22006	BLYTH AT HARTFORD BRIDGE	100	35002	DEBEN AT NAUNTON HALL	110
23001	TYNE AT BYWELL	101	D 36006	STOUR AT LANGHAM	64
D 23006	SOUTH TYNE AT FEATHERSTONE	51	37001	RODING AT REDBRIDGE	110
23007	DERWENT AT ROWLANDS GILL	101	37005	COLNE AT LEXDEN	111
24004	BEDBURN BECK AT BEDBURN	101	37010	BLACKWATER AT APPLEFORD BRIDGE	111
24009	WEAR AT CHESTER LE STREET	101	37014	RODING AT HIGH ONGAR	111
D 25001	TEES AT BROKEN SCAR	52	38001	LEE AT FEILDES WEIR	111
25006	GRETA AT RUTHERFORD BRIDGE	102	D 38003	MIMRAM AT PANSHANGER PARK	65
25018	TEES AT MIDDLETON IN TEESDALE	102	38007	CANONS BROOK AT ELIZABETH WAY	112
25019	LEVEN AT EASBY	102	38021	TURKEY BROOK AT ALBANY PARK	112
25020	SKERNE AT PRESTON LE SKERNE	102	D 39001	THAMES AT KINGSTON/TEDDINGTON	66
26003	FOSTON BECK AT FOSTON MILL	103	39002	THAMES AT DAYS WEIR	112
26004	GYPSY RACE AT BRIDLINGTON	103	D 39007	BLACKWATER AT SWALLOWFIELD	67
D 27002	WHARFE AT FLINT MILL WEIR	53	39014	VER AT HANSTEDS	112
27007	URE AT WESTWICK LOCK	103	39016	KENNET AT THEALE	113
D 27025	ROTHER AT WOODHOUSE MILL	54	39019	LAMBOURN AT SHAW	113
27030	DEARNE AT ADWICK	103	D 39020	COLN AT BIBURY	68
27031	COLNE AT COLNEBRIDGE	104	39023	WYE AT HEDSOR	113
D 27035	AIRE AT KILDWICK BRIDGE	55	39026	CHERWELL AT BANBURY	113
D 27041	DERWENT AT BUTTERCRAMBE	56	39029	TILLINGBOURNE AT SHALFORD	114
27042	DOVE AT KIRKBY MILLS	104	39049	SILK STREAM AT COLINDEEP LANE	114
27043	WHARFE AT ADDINGHAM	104	39069	MOLE AT KINNERSLEY MANOR	114
D 27053	NIDD AT BIRSTWICH	57	40003	MEDWAY AT TESTON	114
27059	LAVAR AT RIPON	104	40004	ROTHER AT UDIAM	115
27071	SWALE AT CRAKEHILL	105	D 40005	BEULT AT STILE BRIDGE	69
D 28009	TRENT AT COLWICK	58	40009	TEISE AT STONE BRIDGE	115
D 28010	DERWENT AT LONGBRIDGE WEIR	59	41001	NUNNINGHAM STREAM AT TILLEY	
28012	TRENT AT YOXALL	105		BRIDGE	115
			41005	OUSE AT GOLD BRIDGE	115

continued on p. 43



Figure 14. Gauging station location map.





STATION NUMBER	RIVER NAME AND STATION NAME	SEE PAGE	STATION NUMBER	RIVER NAME AND STATION NAME	SEE PAGE
41006	UCK AT ISFIELD	116	57008	RHYMNEY AT LLANEDERYN	126
D 41016	CUCKMERE AT COWBEECH	70	58006	MELLTE AT PONTNEATHVAUGHAN	126
41025	LOXWOOD STREAM AT DRUNGEWICK	116	59001	TAWTE AT YNYS TANGLWS	126
41027	ROTHER AT PRINCES MARSH	116	60003	TAF AT CLOG-Y-FRAN	126
42003	LYMINGTON AT BROCKENHURST PARK	116	61003	GWAUN AT CILRHEDYN BRIDGE	127
42006	MEON AT MISLINGFORD	117	D 62001	TEIFI AT GLAN TEIFI	82
42008	CHERITON STREAM AT SEWARDS BRIDGE	117	63001	YSTWYTH AT PONT LLOLWYN	127
D 42010	ITCHEN AT HIGHBRIDGE AND ALLBROOK	71	64001	DOVEY AT DOVEY BRIDGE	127
42012	ANTON AT FULLERTON	117	64002	DYSYNNI AT PONT-Y-GARTH	127
D 43005	AVON AT AMESBURY	72	D 65001	GLASLYN AT BEDDGELEERT	83
43006	NADDER AT WILTON PARK	117	65005	ERCH AT PENCAENEWYDD	128
43007	STOUR AT THROOP MILL	118	66006	ELWY AT PONT-Y-GWYDDEL	128
44002	PIDDLE AT BAGGS MILL	118	67008	ALYN AT PONT-Y-CAPEL	128
D 45001	EXE AT THORVERTON	73	D 67015	DEE AT MANLEY HALL	84
45003	CULM AT WOODMILL	118	D 68001	WEAVER AT ASHBROOK	85
45005	OTTER AT DOTTON	118	68003	DANE AT RUDHEATH	128
46002	TEIGN AT PRESTON	119	69002	IRWELL AT ADELPHI WEIR	129
46003	DART AT AUSTINS BRIDGE	119	69006	BOLLIN AT DUNHAM MASSEY	129
D 47001	TAMAR AT GUNNISLAKE	74	69015	ETHEROW AT COMPSTALL	129
47007	YEALM AT PUSLINCH	119	70004	YARROW AT CROSTON MILL	129
47008	THRUSHIEL AT TINHAY	119	D 71001	RIBBLE AT SAMLESBURY	86
48004	WARLEGGAN AT TREGOFFE	120	71004	CALDER AT WHALLEY WEIR	130
48005	KENWYN AT TRURO	120	72002	WYRE AT ST MICHAELS	130
48011	FOWEY AT RESTOMEL TWO	120	72004	LUNE AT CATON	130
49001	CAMEL AT DENBY	120	73005	KENT AT SEDGWICK	130
49002	HAYLE AT ST ERTH	121	D 73010	LEVEN AT NEWBY BRIDGE	87
D 50001	TAW AT UMBERLEIGH	75	74001	DUDDON AT DUDDON HALL	131
50002	TORRIDGE AT TORRINGTON	121	74002	IRT AT GALESYKE	131
D 52005	TONE AT BISHOPS HULL	76	74005	EHEN AT BRAYSTONES	131
52006	YEO AT PEN MILL	121	75002	DERWENT AT CAMERTON	131
52007	PARRETT AT CHISELBOROUGH	121	D 76007	EDEN AT SHEEPMOUNT	88
53004	CHEW AT COMPTON DANDO	122	76015	EAMONT AT POOLEY BRIDGE	132
D 53006	FROME (BRISTOL) AT FRENCHAY	77	78003	ANNAN AT BRYDEKIRK	132
53007	FROME (SOMERSET) AT TELLISFORD	122	78004	KINNEL WATER AT REDHALL	132
53009	WELLOW BROOK AT WELLOW	122	D 79006	NITH AT DRUMLANRIG	89
53018	AVON AT BATHFORD	122	80001	URR AT DALBEATTIE	132
D 54001	SEVERN AT BEWDLEY	78	81003	LUCE AT AIRYHEMMING	133
D 54002	AVON AT EVESHAM	79	82001	GIRVAN AT ROBSTONE	133
54006	STOUR AT KIDDERMINSTER	123	83003	AYR AT CATRINE	133
54008	TEME AT TENBURY	123	D 84005	CLYDE AT BLAIRSTON	90
54012	TERN AT WALCOT	123	84012	WHITE CART WATER AT HAWKHEAD	133
54019	AVON AT STARETON	123	84016	LUGGIE WATER AT CONDORRAT	134
54020	PERRY AT YEATON	124	85001	LEVEN AT LINNBRANE	134
54022	SEVERN AT PLYNLIMON FLUME	124	D 85003	FALLOCH AT GLEN FALLOCH	91
55008	WYE AT CEFN BRWYN	124	94001	EWY AT POOLEWE	134
55013	ARROW AT TITLEY MILL	124	95001	INVER AT LITTLE ASSYNT	134
55014	LUGG AT BYTON	125	96001	HALLADALE AT HALLADALE	135
55018	FROME AT YARKHILL	125	101002	MEDINA AT UPPER SHIDE	135
55023	WYE AT REDBROOK	125	D 201005	CAMOWEN AT CAMOWEN TERRACE	92
D 55026	WYE AT DDOL FARM	80	201007	BURNDENNET AT BURNDENNET BRIDGE	135
D 56001	USK AT CHAIN BRIDGE	81	D 203010	BLACKWATER AT MAYDOWN BRIDGE	93
56013	YSCIR AT PONTARYSCIR	125	205005	RAVERNET AT RAVERNET	135

A 'D' indicates that the featured station is in the daily flow section

**003003 Oykel at Easter Turnaig****1984**Measuring authority: HRPB  
First year: 1977Grid reference: NC 403001  
Level stn (m OD) 15 62Catchment area (sq km): 330.7  
Max alt. (m OD): 998**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	52 540	11 370	26 210	4 026	1 927	0 614	2 251	4 203	5 887	12 780	20 200	7 312
2	36 440	42 500	14 420	3 673	1 735	0 777	2 095	2 738	6 696	7 545	14 630	5 227
3	28 360	71 400	78 170	3 531	1 600	0 917	1 689	1 987	17 710	10 640	11 700	6 854
4	16 760	55 290	70 600	3 277	1 520	2 819	1 340	1 646	6 962	17 990	7 529	9 311
5	76 200	26 860	27 090	3 152	1 420	2 188	1 145	1 568	4 054	12 700	6 267	11 080
6	76 140	18 130	27 290	3 130	1 253	1 295	1 017	2 156	2 732	14 200	4 890	19 590
7	37 880	14 770	14 740	4 524	1 100	0 982	1 005	2 501	2 168	22 660	4 873	51 140
8	18 330	19 150	9 121	5 104	0 996	0 824	0 888	1 991	7 630	36 680	12 800	28 560
9	41 010	57 670	7 372	7 317	1 015	0 744	0 815	2 059	27 020	18 250	19 760	160 200
10	68 230	103 800	6 244	23 560	1 392	0 651	0 796	1 639	28 410	29 270	29 980	129 300
11	51 140	53 570	12 760	22 040	1 189	0 625	0 790	1 293	29 270	29 530	10 560	25 340
12	33 570	25 490	9 338	21 150	1 050	0 790	0 759	1 140	13 280	20 700	7 557	12 070
13	12 400	29 780	7 039	53 430	0 958	1 166	0 734	1 015	12 430	25 990	5 409	7 590
14	10 470	15 210	5 160	46 010	0 972	2 286	0 737	0 904	9 887	14 290	4 217	5 751
15	8 250	8 705	4 229	47 020	1 171	1 984	0 813	0 833	6 658	13 620	6 993	4 772
16	6 906	11 800	5 717	38 150	1 308	1 800	1 767	0 790	13 040	8 921	9 774	4 107
17	7 365	16 420	4 637	28 880	1 512	1 359	1 783	0 767	14 350	8 843	9 196	16 090
18	8 271	12 380	3 939	34 160	1 186	1 101	1 832	0 824	25 610	105 400	10 420	9 553
19	7 904	5 887	3 271	20 850	1 069	1 265	1 484	0 824	68 960	40 990	12 260	37 820
20	15 550	4 434	2 734	13 610	1 103	1 951	1 248	0 822	27 410	30 330	21 170	33 220
21	22 310	4 200	2 358	14 250	1 067	2 659	1 312	0 787	12 140	65 790	22 710	49 390
22	21 730	14 030	2 173	7 963	1 005	6 461	1 482	0 745	13 360	35 110	14 450	27 110
23	20 410	13 050	2 003	5 359	0 944	5 356	1 385	0 662	25 500	26 080	7 922	59 910
24	18 460	25 800	43 180	4 564	0 898	10 270	1 270	0 648	22 100	26 760	37 640	30 810
25	17 030	13 890	33 940	4 237	0 899	13 730	1 090	0 620	12 050	81 930	18 660	15 080
26	16 780	9 700	26 760	4 017	0 943	12 070	1 073	0 588	7 540	38 360	11 160	7 372
27	15 920	8 741	41 140	3 331	0 848	17 550	25 260	0 575	14 450	19 430	55 200	5 276
28	13 390	15 480	22 190	2 871	0 794	7 986	21 000	0 596	48 350	11 090	37 390	4 394
29	13 270	26 230	12 350	2 581	0 760	4 102	7 623	0 656	15 070	13 890	20 960	13 620
30	11 630	7 574	2 305	0 726	0 726	2 710	9 832	16 890	29 680	13 010	9 998	16 350
31	11 390	5 093		0 680	0 680		7 764	17 820		13 070		31 730
Average	25 680	25 370	17 380	14 600	1 130	3 634	3 357	2 332	17 680	26 640	15 540	27 290
Lowest	6 906	4 200	2 003	2 305	0 680	0 614	0 734	0 575	2 168	7 545	4 217	4 107
Highest	76 200	103 800	78 170	53 430	1 927	17 550	25 260	17 820	68 960	105 400	55 200	160 200
Peak flow	119 200	131 300	149 400	103 800	2 199	33 810	52 080	29 630	135 000	179 000	90 660	318 100
Day of peak	12	10	4	14	1	25	28	31	19	18	28	10
Monthly total (million cu m)	68 78	63 57	46 56	37 85	3 03	9 42	8 99	6 25	45 83	71 35	40 29	73 09
Runoff (mm)	208	192	141	114	9	28	27	19	139	216	122	221
Rainfall (mm)	301	141	150	117	29	89	76	52	209	275	154	226

**Statistics of monthly data for previous record (Nov 1977 to Dec 1983)**

Mean flows	Avg	28 840	15 310	21 390	8 776	6 705	7 475	7 813	9 234	25 070	29 400	32 520	23 370
	Low	16 030	9 324	6 649	5 445	1 067	0 752	2 853	4 707	19 450	7 328	14 420	8 245
	(year)	1980	1982	1980	1980	1980	1982	1983	1983	1979	1979	1983	1977
	High	43 980	22 610	40 740	17 720	14 380	14 140	15 690	17 230	31 870	41 100	49 380	38 210
	(year)	1983	1981	1983	1979	1982	1980	1979	1982	1981	1980	1981	1980
Runoff	Avg	234	113	173	69	54	59	63	75	197	238	255	189
	Low	130	68	54	43	9	6	23	38	152	59	113	67
	High	356	165	330	139	116	111	127	140	250	333	387	309
Rainfall	Avg	252	99	193	81	81	112	101	126	254	276	308	216
	Low	150	66	76	50	30	44	60	58	210	96	92	82
	High	408	162	308	129	154	176	169	244	326	401	458	361

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	15 020	18 010	83
Lowest yearly mean		16 370	1978
Highest yearly mean		20 250	1981
Lowest monthly mean	1 130 May	0 752 Jun 1982	
Highest monthly mean	27 290 Dec	49 380 Nov 1981	
Lowest daily mean	0 575 27 Aug	0 353 26 Jun 1982	
Highest daily mean	160 200 9 Dec	404 800 29 Jan 1982	
Peak	318 100 10 Dec	847 500 5 Oct 1978	
10 %ile	37 040	42 000	88
50 %ile	8 254	9 309	89
95 %ile	0 766	1 084	71
Annual total (million cu m)	475 00	568 20	84
Annual runoff (mm)	1436	1718	84
Annual rainfall (mm)	1819	2099	87
[1941-70 rainfall average (mm)]		1967]	

**Factors affecting flow regime**

● Natural to within 10% at 95 percentile flow

**Station description**

Velocity-area station. Flow contained under cableway up to 3.8 m



**008006 Spey at Boat o Brig****1984**Measuring authority: NERPB  
First year: 1952Grid reference: NJ 318518  
Level stn. (m OD) 43.12Catchment area (sq km): 2861.2  
Max alt. (m OD): 1309**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	325 800	37 370	115 800	54 220	65 150	32 010	19 240	17 730	16 990	60 420	69 920	154 700
2	258 500	44 150	99 500	49 030	59 370	31 640	20 080	15 830	20 660	57 530	88 920	132 900
3	161 400	59 010	79 430	47 020	55 570	32 030	19 640	16 030	50 780	58 670	223 400	114 000
4	117 200	73 440	168 700	45 650	53 560	40 270	18 780	20 740	45 500	76 680	236 200	95 240
5	105 500	79 690	163 200	44 740	52 240	39 560	18 020	19 640	34 590	67 000	123 400	107 400
6	104 400	61 130	134 500	44 150	46 560	35 580	17 790	18 740	27 410	52 900	90 820	107 700
7	105 700	54 220	134 300	46 730	41 250	32 300	17 750	23 200	24 020	48 550	85 640	109 900
8	87 970	51 590	112 600	64 420	37 370	29 540	17 000	19 580	22 790	42 970	132 100	163 600
9	75 590	49 030	94 300	79 870	36 010	27 140	16 470	17 340	59 540	39 250	148 400	133 900
10	188 500	76 240	88 200	102 800	38 720	25 350	16 030	16 170	100 200	37 020	265 500	107 000
11	203 400	121 600	93 350	117 300	39 170	24 040	15 840	15 330	55 560	40 920	159 000	88 510
12	141 100	120 300	79 690	80 660	37 830	23 610	24 800	14 850	41 240	43 090	134 100	76 690
13	152 300	123 300	67 000	117 300	36 850	24 100	26 410	14 580	36 300	41 270	114 300	67 960
14	112 000	107 000	59 710	153 100	36 610	23 260	21 430	14 470	33 210	43 710	96 870	61 570
15	86 690	85 300	55 560	126 900	38 890	21 910	21 540	14 120	31 230	39 790	121 900	58 100
16	71 580	72 020	53 560	86 000	35 260	21 370	22 580	13 880	30 270	35 370	127 800	58 690
17	65 570	85 970	50 300	69 060	32 780	22 120	19 930	13 750	29 800	33 380	116 500	68 790
18	63 130	119 500	46 550	73 560	32 160	20 260	18 710	14 050	28 860	86 900	131 500	63 010
19	55 460	102 500	42 970	116 700	32 420	19 690	17 850	13 810	27 940	95 930	148 800	65 950
20	44 760	79 170	41 240	119 300	32 430	19 200	16 720	13 530	27 490	82 570	206 700	85 050
21	42 510	67 110	39 000	157 300	32 400	18 620	15 910	13 200	27 940	74 790	136 200	69 050
22	34 810	95 340	36 830	127 000	33 010	19 370	15 470	12 990	27 940	98 230	127 200	69 210
23	41 520	95 830	35 770	95 580	35 270	21 350	15 110	12 740	330 200	73 360	95 970	102 600
24	42 660	82 350	114 900	89 210	36 630	19 460	14 660	12 590	241 600	62 540	112 700	116 600
25	42 740	91 880	105 100	90 960	35 730	18 950	14 300	12 590	139 000	349 600	151 600	92 760
26	42 700	93 940	88 280	92 790	34 190	18 950	13 980	12 420	115 100	211 700	113 900	79 890
27	42 570	77 780	83 920	90 070	31 180	18 950	15 610	12 330	83 070	117 200	197 800	61 270
28	40 830	67 680	73 820	81 470	28 690	20 820	16 220	12 340	81 530	91 090	248 000	54 120
29	42 640	75 170	68 340	77 660	28 130	21 590	15 060	12 110	88 280	88 500	225 900	63 840
30	41 900		64 030	74 260	28 100	20 360	14 770	12 230	70 060	85 730	179 800	71 080
31	39 980		61 130		28 530		17 490	14 650		82 900		68 540
Average	96 170	81 020	82 310	87 150	38 390	24 780	17 910	15 080	64 970	77 990	147 000	89 340
Lowest	34 810	37 370	35 770	44 150	28 100	18 620	13 980	12 110	16 990	33 380	69 920	54 120
Highest	325 800	123 300	168 700	157 300	65 150	40 270	26 410	23 200	330 200	349 600	265 500	163 600
Peak flow	387 000	130 000	215 100	180 000	67 760	48 780	36 620	24 610	613 900	441 400	414 100	186 200
Day of peak	1	12	4	14	1	4	12	7	23	25	3	8
Monthly total (million cu m)	257 60	203 00	220 50	225 90	102 80	64 23	47 97	40 40	168 40	208 90	381 10	239 30
Runoff (mm)	90	71	77	79	36	22	17	14	59	73	133	84
Rainfall (mm)	164	92	105	30	24	48	64	39	178	156	213	110

**Statistics of monthly data for previous record (Oct 1952 to Dec 1983)**

Mean flows	Avg	85 600	70 770	73 520	68 310	58 880	41 650	40 270	48 940	48 550	69 670	74 890	86 880
Low (year)	41 080	26 470	35 790	33 600	26 900	17 920	18 060	11 310	14 090	13 340	30 140	38 760	38 760
High (year)	145 900	159 100	145 200	135 200	103 500	103 000	79 860	119 600	105 400	153 900	117 600	198 700	198 700
	1983	1962	1978	1979	1968	1966	1980	1956	1965	1981	1977	1954	1954
Runoff	Avg	80	60	69	62	55	38	38	46	44	65	68	81
	Low	38	22	34	30	25	16	17	11	13	12	27	36
	High	137	135	136	122	97	93	75	112	95	144	107	186
Rainfall	Avg	106	70	79	64	78	74	87	97	95	126	108	114
	Low	38	26	29	19	28	30	20	19	21	30	12	11
	High	183	123	179	128	146	181	158	188	168	335	199	211

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	68 310	64 000	107
Lowest yearly mean		44 220	1972
Highest yearly mean		82 810	1954
Lowest monthly mean	15 080	11 310	Aug 1955
Highest monthly mean	147 000	198 700	Dec 1954
Lowest daily mean	12 110	9 311	16 Aug 1955
Highest daily mean	349 600	1089 000	17 Aug 1970
Peak	613 900	1675 000	17 Aug 1970
10 %ile	131 500	120 100	109
50 %ile	54 010	49 270	110
95 %ile	14 420	19 320	75
Annual total (million cu m)	2160 00	2020 00	107
Annual runoff (mm)	755	706	107
Annual rainfall (mm)	1223	1098	111
[1941-70 rainfall average (mm)]		1168]	

**Factors affecting flow regime**

- Regulation for HEP.

**Station description**

Velocity-area station. 399 sq km Developed for hydro-electric power production

**012001 Dee at Woodend****1984**Measuring authority: NERPB  
First year: 1929Grid reference: NO 635956  
Level stn (m OD) 70.49Catchment area (sq km) 1370.0  
Max alt (m OD) 1310**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	123 000	22 800	85 160	38 740	50 980	22 980	8 809	8 305	6 524	26 980	40 000	83 910
2	72 210	24 050	51 290	36 270	46 420	21 740	8 902	6 475	8 866	26 820	53 280	74 350
3	46 740	28 090	46 480	34 720	44 930	29 100	9 678	5 998	41 540	30 770	148 200	75 080
4	48 550	29 720	128 500	32 600	42 130	35 660	8 552	6 097	18 500	44 260	150 700	64 360
5	46 850	30 500	112 500	33 030	40 200	30 860	7 956	6 085	14 990	30 870	76 450	80 940
6	43 880	26 550	105 800	34 370	36 070	27 640	7 590	7 593	12 050	23 100	55 820	68 590
7	41 830	22 630	101 500	38 200	29 870	27 830	7 416	6 814	10 190	20 930	53 970	68 130
8	34 270	23 200	75 290	54 740	26 410	19 440	7 119	6 215	9 376	20 070	142 400	66 480
9	31 710	22 750	62 950	68 090	25 690	16 790	6 810	5 810	15 400	17 810	180 500	56 500
10	87 830	30 700	69 640	108 700	29 490	15 210	6 788	5 538	35 860	16 460	295 500	49 370
11	112 300	46 650	69 570	98 870	28 600	13 940	6 677	5 220	23 250	18 460	127 200	43 970
12	65 380	56 420	53 200	72 800	26 750	13 900	7 897	5 019	16 920	16 790	127 500	40 030
13	69 790	66 210	43 890	171 100	26 980	16 710	11 280	4 890	15 280	17 840	80 930	36 080
14	49 990	51 640	38 670	194 000	28 700	13 500	9 479	4 783	14 910	22 940	97 630	35 110
15	40 380	41 370	34 740	98 660	28 630	12 320	8 732	4 876	13 380	17 730	165 200	41 800
16	35 320	39 010	31 650	66 390	25 420	11 640	8 418	4 729	12 010	15 920	165 800	52 300
17	31 870	76 640	28 590	54 070	22 430	13 040	7 833	4 685	11 770	15 200	146 200	80 680
18	30 660	103 700	26 470	79 240	22 680	11 040	7 206	4 810	12 170	91 160	177 300	50 320
19	25 490	63 330	24 920	133 200	22 760	10 430	6 866	4 880	10 730	59 270	185 900	45 960
20	23 880	46 440	23 550	138 400	22 800	9 972	6 472	4 706	9 895	44 330	152 200	61 960
21	26 760	47 540	22 690	185 400	22 480	9 678	6 097	4 404	9 963	36 960	128 300	41 500
22	22 090	93 300	21 780	102 800	23 450	9 734	5 944	4 192	10 050	53 100	135 700	40 400
23	27 610	68 970	21 560	83 780	32 050	12 320	5 831	4 083	85 510	34 720	86 190	70 960
24	25 140	60 500	81 610	93 510	29 900	10 040	5 659	4 125	90 850	32 670	102 800	81 090
25	26 320	70 250	65 220	102 800	25 710	9 255	5 461	4 154	42 620	134 600	92 810	60 600
26	27 740	61 760	83 880	94 240	21 450	8 774	5 156	3 996	35 010	72 750	65 750	47 600
27	25 710	48 040	85 560	87 650	18 260	8 505	5 612	3 887	26 290	47 990	244 700	34 790
28	25 800	43 120	68 110	81 280	16 570	9 892	6 595	3 866	36 040	42 260	150 000	34 160
29	30 860	57 860	60 860	73 760	17 140	10 380	5 946	3 829	33 720	52 920	95 800	38 890
30	27 700		51 160	62 170	16 940	9 498	5 578	3 920	33 100	47 330	99 370	44 350
31	23 470		43 620		17 260		6 651	5 373		55 250		41 710
Average	43 580	48 400	58 720	85 120	28 040	15 560	7 258	5 141	23 890	38 330	127 500	55 220
Lowest	22 090	22 630	21 560	32 600	18 570	8 505	5 156	3 829	6 524	15 200	40 000	34 160
Highest	123 000	103 700	128 500	194 000	50 980	35 660	11 280	8 305	90 850	134 600	295 500	83 910
Peak flow	250 900	114 700	180 400	242 500	59 010	42 990	12 290	9 419	192 500	177 700	491 800	114 700
Day of peak	1	18	18	14	1	3	13	6	23	25	10	24
Monthly total (million cu m)	116 70	121 30	157 30	220 60	75 09	40 33	19 44	13 77	61 93	102 70	330 40	147 90
Runoff (mm)	85	89	115	161	55	29	14	10	45	75	241	108
Rainfall (mm)	180	89	175	17	21	54	56	35	141	130	320	112

**Statistics of monthly data for previous record (Oct 1929 to Dec 1983)**

Mean flows	Avg	48 350	40 280	41 940	44 230	35 710	22 090	18 390	22 120	25 720	39 910	46 300	49 040
Low	15 450	13 420	15 160	11 370	12 130	7 342	7 765	5 228	5 228	6 491	6 798	12 230	22 020
(year)	1940	1947	1973	1938	1946	1940	1976	1955	1955	1972	1972	1983	1976
High	127 800	90 110	88 680	113 300	77 100	56 080	36 710	63 860	71 820	138 200	107 200	108 400	108 400
(year)	1937	1945	1977	1947	1951	1948	1958	1948	1930	1982	1951	1954	
Runoff, Avg	95	72	87	84	70	42	36	43	49	78	88	96	
Low	30	24	30	22	24	14	15	10	12	13	23	43	
High	250	159	173	214	151	106	72	125	136	270	203	212	
Rainfall, Avg	118	76	74	70	81	66	90	94	95	120	112	120	
Low	36	10	16	12	28	16	24	13	13	8	22	43	
High	374	148	149	196	179	160	206	185	227	310	260	282	

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	44 510	36 160	123
Lowest yearly mean		24 190	1973
Highest yearly mean		49 050	1982
Lowest monthly mean	5 141	5 228	Aug 1955
Highest monthly mean	127 500	138 200	Oct 1982
Lowest daily mean	3 829	3 536	27 Aug 1976
Highest daily mean	295 500	648 500	24 Jan 1937
Peak	491 800	1133 000	24 Jan 1937
10 %ile	98 140	71 990	136
50 %ile	31 510	25 390	124
95 %ile	5 029	8 489	59
Annual total (million cu m)	1408 00	1141 00	123
Annual runoff (mm)	1027	833	123
Annual rainfall (mm)	1330	1116	119
[1941-70 rainfall average (mm)]		1156]	

**Factors affecting flow regime**

● Natural to within 10% at 95 percentile flow.

**Station description**

Velocity-area station. The lowest flows prior to 1971 are considered to be of limited accuracy

**015006 Tay at Ballathie****1984**Measuring authority: TRPB  
First year: 1952Grid reference: NO 147367  
Level stn. (m OD) 26.29Catchment area (sq km): 4587.1  
Max alt. (m OD): 1214**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	739 500	162 800	318 700	178 100	116 900	61 020	36 310	27 720	27 780	89 660	301 700	502 400
2	604 500	177 300	253 900	171 700	106 500	65 860	39 890	26 460	62 040	98 120	307 600	428 600
3	511 500	201 200	205 700	166 600	107 700	79 210	38 800	26 090	164 500	96 660	331 500	394 400
4	397 800	220 300	344 300	153 500	99 740	80 760	36 820	26 090	118 700	123 200	342 200	360 700
5	340 900	239 900	351 500	152 200	89 770	68 630	36 750	26 270	105 500	95 360	248 100	400 000
6	359 100	240 100	347 500	148 000	79 980	61 590	34 010	26 200	96 930	83 160	218 400	376 000
7	357 200	220 100	327 700	132 900	76 160	58 620	35 240	27 120	84 460	75 950	202 000	571 700
8	318 100	214 400	275 100	149 300	72 640	53 310	33 040	26 900	56 910	77 720	249 600	551 000
9	290 200	200 300	243 200	171 200	74 160	49 430	30 960	25 350	61 140	78 350	387 900	479 100
10	391 000	223 000	229 700	213 900	75 220	48 800	32 070	24 910	59 100	73 100	628 200	445 800
11	485 700	249 600	227 900	232 500	80 130	48 510	32 740	24 660	54 170	82 880	433 500	359 500
12	419 900	280 100	212 900	202 100	72 230	51 440	33 870	24 440	54 960	90 430	496 600	306 400
13	511 300	335 400	179 100	311 600	67 320	57 400	35 590	24 260	59 730	95 050	384 600	272 800
14	413 300	308 400	156 800	365 700	62 870	48 700	34 540	24 260	58 730	100 800	339 600	268 200
15	371 100	263 500	143 400	285 000	64 520	47 150	33 930	23 890	51 710	99 270	359 500	263 900
16	330 400	268 900	137 000	219 000	63 440	46 980	33 020	23 710	47 340	101 600	442 000	260 800
17	296 100	373 200	131 100	181 800	63 210	46 310	32 550	23 710	45 700	97 930	417 800	295 200
18	262 700	428 900	126 100	211 400	59 980	45 240	30 240	23 710	44 090	316 900	408 200	258 700
19	222 800	321 400	126 000	291 500	62 520	49 390	27 990	23 710	45 960	346 700	386 700	274 800
20	204 400	270 400	121 900	280 200	59 570	47 600	27 560	24 620	45 740	286 100	304 800	315 700
21	226 900	271 400	118 000	333 600	59 510	49 180	27 240	24 180	48 790	258 400	299 200	267 100
22	223 600	424 500	115 200	221 600	57 270	47 620	26 970	23 970	57 750	325 500	397 700	301 400
23	198 100	378 400	115 600	206 900	61 040	45 060	26 700	23 930	81 090	242 900	316 400	341 300
24	182 800	311 900	334 800	213 400	64 840	42 810	26 480	23 890	95 230	244 900	458 300	382 200
25	180 400	300 000	296 700	219 700	68 430	45 710	26 360	25 350	58 050	448 200	464 300	363 700
26	147 000	269 100	351 800	204 800	64 740	43 620	26 410	25 170	52 930	311 500	365 700	320 000
27	150 200	242 800	418 900	196 100	56 960	43 260	28 550	24 260	49 500	252 800	774 600	259 200
28	154 400	184 000	331 800	167 800	54 970	44 040	28 340	24 000	87 880	249 800	765 900	238 900
29	173 700	226 300	285 800	145 700	59 180	42 900	26 640	23 890	83 440	330 800	621 500	267 200
30	173 500		232 200	137 300	58 190	38 830	26 280	24 990	102 000	322 900	576 800	251 100
31	171 200		202 400		57 310		27 260	24 800		286 500		238 400
Average	316 400	269 200	234 300	208 800	71 520	51 970	31 390	24 920	68 730	186 600	407 700	342 400
Lowest	147 000	162 800	115 200	132 900	54 970	38 830	26 280	23 710	27 780	73 100	202 000	238 400
Highest	739 500	428 900	418 900	365 700	116 900	80 760	39 890	27 720	164 500	448 200	774 600	571 700
Peak flow	976 200	481 200	473 300	447 400	136 500	103 400	40 490	27 720	246 500	518 700	986 800	631 700
Day of peak	1	22	27	14	1	3	2	1	3	25	27	7
Monthly total (million cu m)	847 50	674 60	627 50	541 30	191 50	134 70	84 08	66 74	178 10	499 70	1057 00	917 10
Runoff (mm)	185	147	137	118	42	29	18	15	39	109	230	200
Rainfall (mm)	242	133	142	35	30	57	42	30	172	201	311	165

**Statistics of monthly data for previous record (Oct 1952 to Dec 1983)**

Mean flows	Avg	236 100	201 400	199 300	141 200	119 800	82 010	66 620	81 370	119 200	186 000	208 500	237 500
Low	92 910	52 560	69 380	75 210	45 500	42 080	37 160	14 690	14 690	40 650	39 680	89 160	112 800
(year)	1963	1963	1953	1974	1980	1957	1982	1955	1955	1955	1972	1972	1952
High	515 800	353 700	424 800	231 200	230 800	190 400	111 500	161 100	207 700	390 500	398 700	491 400	491 400
(year)	1974	1962	1967	1960	1983	1966	1970	1956	1982	1982	1954	1954	1954
Runoff	Avg	138	107	116	80	70	46	39	48	67	109	118	139
Low	54	28	41	43	27	24	22	9	23	23	50	66	66
High	301	187	248	131	135	108	65	94	117	228	225	287	287
Rainfall	Avg	153	102	115	72	99	85	93	105	132	150	142	165
Low	33	31	39	10	26	49	21	14	11	63	38	64	64
High	393	182	224	150	200	181	144	184	266	269	281	271	271

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	184 000	156 500	118
Lowest yearly mean		107 300	1955
Highest yearly mean		207 900	1954
Lowest monthly mean	24 920	14 690	Aug 1955
Highest monthly mean	407 700	515 800	Jan 1974
Lowest daily mean	23 710	11 460	6 Aug 1955
Highest daily mean	774 600	1223 000	27 Nov 1954
Peak	986 800	1570 000	30 Jan 1974
10 %ile	385 400	300 300	128
50 %ile	148 400	127 200	117
95 %ile	24 900	43 420	57
Annual total (million cu m)	5819 00	4939 00	118
Annual runoff (mm)	1268	1077	118
Annual rainfall (mm)	1560	1413	110
[1941-70 rainfall average (mm)]		1442	

**Factors affecting flow regime**

- Reservoir(s) in catchment
- Regulation for HEP
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.

**Station description**

Velocity-area station. 1980 sq km developed for hydro-electric power production; 73 sq km for water supply purposes. Due to implementation of Hydro Board schemes, the river was partially regulated up to the end of 1957, and totally regulated after this date.



**019001 Almond at Craigiehall****1984**Measuring authority: FRPB  
First year: 1957Grid reference: NT 165752  
Level stn. (m OD) 22.90Catchment area (sq km): 369.0  
Max alt. (m OD): 518**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	35 260	29 060	5 002	6 714	1 726	4 458	1 198	1 186	2 260	2 334	9 926	14 580
2	38 630	45 670	7 507	5 496	1 689	4 500	1 394	1 599	3 981	1 811	14 720	16 090
3	18 760	39 190	5 620	4 852	1 804	3 827	1 456	1 084	2 619	1 587	110 900	9 977
4	9 651	60 020	13 300	4 253	1 788	3 377	1 361	0 757	1 509	2 096	43 830	7 742
5	13 090	42 520	7 093	3 680	1 612	3 716	1 343	0 692	1 038	1 452	15 150	7 637
6	12 420	39 780	5 536	3 610	1 551	7 820	1 232	1 073	0 834	1 073	9 706	7 284
7	12 790	19 540	4 686	3 697	1 585	3 574	1 232	1 180	0 756	0 932	11 000	17 790
8	7 139	17 370	4 036	3 336	1 588	2 188	1 345	0 881	0 707	1 572	20 300	11 810
9	5 647	13 230	3 652	3 195	1 580	1 720	1 322	0 850	0 924	1 626	49 670	8 611
10	9 326	28 060	3 504	3 498	1 514	1 541	1 285	0 724	0 788	1 447	43 840	7 160
11	27 430	16 110	4 265	4 048	1 282	1 427	1 239	0 639	0 673	3 807	15 560	5 989
12	41 630	11 140	5 494	3 277	1 296	1 346	2 042	0 736	0 667	2 771	12 670	4 992
13	63 250	8 331	5 239	2 911	1 332	1 316	1 794	0 832	1 718	3 676	9 029	4 313
14	17 540	6 822	6 536	2 657	1 333	1 219	1 088	0 781	3 278	3 489	7 003	3 976
15	11 360	5 773	4 772	2 533	1 373	1 120	0 906	0 809	1 999	2 298	6 235	3 584
16	10 660	5 173	3 806	2 423	1 498	1 058	0 919	0 796	1 463	1 617	8 042	3 271
17	12 110	5 761	3 370	2 320	1 564	1 080	0 903	0 839	1 202	1 398	8 121	6 609
18	12 750	5 089	3 257	2 694	1 520	1 142	0 946	0 754	0 956	16 140	7 488	5 620
19	9 222	4 072	3 078	2 908	1 450	1 161	0 951	0 821	0 858	7 719	8 334	10 660
20	6 894	3 570	2 826	2 774	1 512	1 224	0 925	0 886	0 988	5 329	6 658	19 060
21	6 028	4 215	2 729	2 448	2 251	1 526	0 844	0 901	0 974	6 561	8 009	9 264
22	5 485	6 001	2 740	2 231	2 175	2 236	0 820	0 790	3 468	23 740	21 430	7 494
23	5 517	5 176	3 875	2 109	1 550	1 410	0 898	0 809	5 223	8 494	13 740	10 210
24	4 953	5 101	20 150	1 979	1 708	1 281	0 887	0 841	4 013	34 830	17 410	14 850
25	4 622	5 379	18 900	1 960	2 389	1 300	0 875	0 713	2 134	38 340	18 380	10 050
26	6 357	4 876	42 860	1 912	2 858	1 259	0 884	0 663	1 371	11 010	10 440	7 172
27	12 980	4 093	16 300	1 817	2 062	1 257	1 856	0 934	1 754	6 320	70 850	4 829
28	17 840	3 490	14 130	1 764	1 605	1 167	1 052	2 034	7 884	5 326	26 320	4 087
29	28 560	3 398	11 970	1 792	1 409	1 216	0 780	1 783	3 775	18 410	12 600	5 190
30	21 910		11 400	1 770	1 354	1 182	0 875	1 351	2 637	20 070	8 954	6 939
31	15 640		8 861		1 393		2 681	1 465		14 620		5 744
Average	16 300	15 450	8 274	3 022	1 656	2 088	1 204	0 974	2 082	8 126	20 880	8 470
Lowest	4 622	3 398	2 729	1 764	1 282	1 058	0 780	0 639	0 667	0 932	6 235	3 271
Highest	63 250	60 020	42 860	6 714	2 858	7 820	2 681	2 034	7 884	38 340	110 900	19 060
Peak flow	177 400	94 160	58 210	7 513	4 393	10 770	4 668	3 632	10 200	93 120	199 600	29 390
Day of peak	12	4	26	1	26	6	31	28	28	24	3	1
Monthly total (million cu m)	43 67	38 71	22 16	7 83	4 44	5 41	3 23	2 61	5 40	21 76	54 11	22 69
Runoff (mm)	118	105	60	21	12	15	9	7	15	59	147	61
Rainfall (mm)	135	69	91	16	40	60	32	34	111	129	181	74

**Statistics of monthly data for previous record (Jan 1957 to Dec 1983)**

Mean	Avg	8 754	7 239	6 119	3 981	3 103	2 397	2 077	2 943	4 179	6 118	9 168	8 721
flows:	Low	3 574	1 782	1 918	1 409	1 091	0 817	0 951	0 869	0 668	0 668	1 882	3 016
	(year)	1963	1963	1973	1974	1961	1961	1960	1983	1959	1972	1972	1975
	High	16 110	13 740	14 300	8 374	11 170	8 572	9 224	8 434	12 680	15 120	21 660	16 280
	(year)	1982	1977	1979	1972	1968	1966	1958	1966	1962	1981	1963	1974
Runoff	Avg	64	48	44	28	23	17	15	21	29	44	64	63
	Low	26	12	14	10	8	6	7	6	5	5	13	22
	High	117	90	104	59	81	60	67	61	89	110	152	118
Rainfall	Avg	77	55	64	50	62	60	70	82	87	88	91	82
	Low	28	17	22	8	16	24	23	19	14	23	19	21
	High	145	107	127	88	123	136	165	142	159	177	190	154

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	7 337	5 391	136
Lowest yearly mean		2 890	
Highest yearly mean		7 372	
Lowest monthly mean	0 974	0 668	1973
Highest monthly mean	20 880	21 660	Nov 1963
Lowest daily mean	0 639	0 241	9 Oct 1959
Highest daily mean	110 900	120 400	22 Nov 1969
Peak	199 600	181 800	19 Dec 1982
10 %ile	17 520	12 390	
50 %ile	3 406	2 729	
95 %ile	0 811	0 854	
Annual total (million cu m)	232 00	170 10	
Annual runoff (mm)	629	461	
Annual rainfall (mm)	972	868	
[1941-70 rainfall average (mm)]		916]	

**Factors affecting flow regime**

- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from effluent returns.

**Station description**

Velocity-area station

**021009 Tweed at Norham****1984**Measuring authority: TWRP  
First year: 1959Gnd reference: NT 898477  
Level stn. (m OD) 4.27Catchment area (sq km): 4390.0  
Max alt. (m OD): 839**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	153 600	144 300	80 090	135 800	24 570	16 600	13 070	21 210	12 080	24 590	77 930	156 400
2	237 200	341 600	100 400	113 700	23 960	21 280	12 410	19 670	12 050	21 340	116 300	259 000
3	235 100	442 100	76 610	99 430	23 400	21 470	12 070	30 640	12 780	19 190	588 600	189 700
4	139 200	518 100	140 200	87 460	23 320	23 510	11 710	24 170	11 890	20 180	861 500	167 000
5	139 800	486 600	131 800	75 760	22 740	24 910	11 460	17 710	11 620	23 610	378 400	189 700
6	135 900	387 000	106 200	70 090	21 810	77 840	11 300	14 830	11 590	18 650	231 800	172 800
7	127 500	252 500	95 870	72 400	20 800	53 120	11 800	13 940	11 000	16 320	245 600	151 600
8	103 600	205 000	83 940	65 240	20 560	34 630	11 980	14 670	10 530	15 470	216 600	133 600
9	87 670	155 800	75 180	61 390	22 170	27 320	11 370	15 140	10 500	16 440	294 800	116 800
10	89 340	182 000	70 890	59 410	23 240	23 420	10 890	13 090	11 700	16 490	458 900	101 700
11	127 800	208 900	69 270	67 180	22 210	21 290	10 680	13 020	11 140	15 190	287 300	88 880
12	130 700	182 700	68 350	57 920	20 270	19 620	13 700	12 570	10 670	14 640	290 800	78 870
13	431 700	146 300	63 010	52 900	19 190	19 400	12 250	12 550	11 500	14 100	252 300	71 970
14	226 800	122 000	61 600	53 070	18 480	19 970	11 410	12 580	11 370	17 050	188 100	67 490
15	160 000	108 400	55 860	50 520	17 890	18 810	11 120	11 450	15 700	20 320	166 700	63 310
16	145 600	95 570	50 480	44 540	17 560	17 870	11 050	13 160	13 970	17 730	196 500	58 320
17	169 400	93 400	47 040	41 070	17 440	22 370	10 810	12 480	15 790	17 510	198 400	57 290
18	140 200	100 800	44 890	41 200	17 270	19 130	11 670	12 650	20 950	53 260	192 400	61 530
19	114 900	86 090	42 740	48 860	16 670	17 660	13 720	11 570	15 800	121 700	184 300	58 210
20	93 060	73 470	40 130	49 270	16 390	17 170	11 720	11 750	14 490	85 400	137 900	77 660
21	86 560	70 990	38 220	44 270	17 410	17 540	10 890	11 160	13 650	57 850	134 100	98 330
22	72 290	99 550	36 300	39 510	19 650	17 420	10 160	10 970	14 890	81 710	266 200	81 600
23	76 830	96 920	34 960	35 890	20 110	18 740	9 704	12 030	27 330	89 230	222 200	91 060
24	65 640	78 320	144 200	33 680	18 740	17 480	9 383	10 720	39 650	62 320	168 300	157 300
25	64 940	78 300	170 800	32 040	23 570	16 440	10 430	9 572	31 340	125 100	132 400	131 800
26	66 520	72 790	403 900	30 070	20 350	15 610	12 260	9 923	22 960	80 620	111 000	118 700
27	88 970	67 120	302 500	28 560	18 920	16 480	11 700	9 949	19 600	59 200	208 800	88 590
28	122 700	62 790	210 200	27 630	18 600	18 180	11 910	9 804	20 510	51 210	423 300	75 350
29	250 700	61 620	203 700	26 590	17 480	17 010	12 450	9 644	29 340	66 360	228 700	71 800
30	200 400		191 200	25 490	16 930	15 820	11 880	11 960	23 950	97 510	173 900	74 840
31	174 300		151 700		16 680		14 050	10 760		104 100		73 650
Average	143 800	173 100	109 400	55 700	19 950	22 940	11 650	13 720	16 660	46 590	254 500	109 200
Lowest	64 940	61 620	34 960	25 490	16 390	15 610	9 383	9 572	10 500	14 100	77 930	57 290
Highest	431 700	518 100	403 900	135 800	24 570	77 840	14 050	30 640	39 650	125 100	861 500	259 000
Peak flow	674 800	806 700	447 900	150 700	28 590	121 100	16 590	34 560	41 670	233 200	1119 000	300 600
Day of peak	13	4	26	1	25	6	31	3	24	19	3	2
Monthly total (million cu m)	385 30	433 80	293 10	144 40	53 43	59 45	31 19	36 75	43 19	124 80	659 60	292 50
Runoff (mm)	88	99	67	33	12	14	7	8	10	28	150	67
Rainfall (mm)	165	61	118	16	29	71	43	40	93	99	224	76

**Statistics of monthly data for previous record (Oct 1962 to Dec 1983)**

Mean flows	Avg	120 900	100 500	103 700	65 160	58 770	37 610	29 610	39 110	51 980	82 190	109 100	111 200
Low	50 320	37 180	26 290	25 180	17 950	15 550	15 920	9 883	10 990	10 180	24 710	40 700	40 700
(year)	1973	1963	1973	1974	1980	1974	1976	1976	1972	1972	1973	1975	1975
High	249 700	173 300	236 400	142 200	153 300	66 210	67 680	116 500	125 600	176 300	271 700	197 900	197 900
(year)	1982	1978	1983	1979	1967	1981	1965	1966	1965	1967	1963	1979	1979
Runoff	Avg	74	56	63	38	36	22	18	24	31	50	64	68
Low	31	20	16	15	11	9	10	6	6	6	15	25	25
High	152	95	144	84	94	39	41	71	74	108	160	121	121
Rainfall	Avg	92	66	79	59	77	69	70	87	95	93	97	90
Low	45	23	21	12	22	25	24	21	19	25	16	23	23
High	158	125	138	98	181	129	140	188	164	163	220	175	175

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	80 870	75 740	107
Lowest yearly mean		33 910	1973
Highest yearly mean		102 400	1963
Lowest monthly mean	11 650	9 883	Aug 1976
Highest monthly mean	254 500	271 700	Nov 1963
Lowest daily mean	9 383	7 427	28 Aug 1976
Highest daily mean	861 500	1138 000	4 Jan 1982
Peak	1119 000	1518 000	4 Jan 1982
10 %ile	194 900	160 900	121
50 %ile	42 440	51 210	83
95 %ile	10 920	14 270	77
Annual total (million cu m)	2557 00	2390 00	107
Annual runoff (mm)	583	544	107
Annual rainfall (mm)	1035	974	106
[1941-70 rainfall average (mm)]		1039]	

**Factors affecting flow regime**

- Reservoir(s) in catchment.
- Abstraction for public water supplies.

Station description  
Velocity-area station

**022001 Coquet at Morwick****1984**Measuring authority: NWA  
First year: 1966Grid reference: NU 234044  
Level str. (m OD): 5.25Catchment area (sq km): 569.8  
Max alt. (m OD): 776**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	12 180	20 290	8 969	16 630	1 865	1 669	1 332	2 375	1 118	3 334	3 719	9 954
2	19 190	51 120	9 481	12 580	2 379	2 178	1 325	3 601	1 529	2 771	3 410	14 150
3	19 210	59 800	7 889	10 530	2 344	2 481	1 319	11 820	1 664	2 407	93 040	12 750
4	10 530	73 310	13 240	9 239	2 387	3 507	1 311	4 680	1 632	2 250	76 180	11 440
5	10 270	59 480	11 990	8 074	2 389	3 023	1 267	2 875	1 544	2 090	29 990	15 900
6	9 518	43 880	8 959	7 569	2 307	7 377	1 247	2 275	1 196	1 874	16 940	13 550
7	8 345	29 130	7 926	8 026	2 242	4 311	1 206	2 099	0 964	1 736	28 350	10 720
8	7 062	24 220	6 880	7 022	2 212	2 871	1 159	2 402	1 143	1 675	29 060	8 976
9	6 321	16 560	6 038	6 424	2 212	2 391	1 129	2 056	1 155	1 625	27 930	8 347
10	6 517	22 500	5 763	6 221	2 270	2 087	1 122	1 735	1 155	1 604	36 420	7 441
11	9 834	24 780	6 486	7 101	2 324	1 956	1 122	1 551	1 155	1 531	17 120	6 734
12	10 450	19 540	8 675	5 853	2 242	1 868	1 122	1 431	1 145	1 489	26 860	6 244
13	31 520	15 040	9 051	5 169	2 114	1 819	1 132	1 357	1 144	1 484	32 570	5 893
14	14 440	11 810	8 918	5 049	2 065	1 819	1 133	1 314	1 144	1 484	28 600	5 826
15	10 790	10 390	7 372	4 931	2 582	1 775	1 133	1 287	1 147	1 470	28 770	6 059
16	15 230	8 927	6 435	4 332	2 010	1 682	1 133	1 271	1 193	1 407	39 410	5 562
17	18 520	8 247	6 055	3 956	1 262	2 302	1 133	1 264	1 193	1 372	35 850	8 497
18	13 310	8 473	5 762	3 831	1 840	2 121	1 125	1 239	1 144	1 534	69 050	8 450
19	9 595	7 282	5 362	3 873	1 863	1 779	1 115	1 166	1 166	2 622	4 364	43 770
20	7 221	6 529	5 010	3 816	1 863	1 631	1 088	1 155	1 155	1 935	3 303	21 670
21	6 951	7 810	4 750	3 801	1 907	1 544	1 078	1 148	1 158	2 626	28 140	7 835
22	6 626	11 060	4 503	3 283	2 061	1 524	1 078	1 144	1 588	2 267	41 710	6 583
23	7 211	11 230	4 297	3 056	2 019	1 529	1 078	1 144	4 634	7 693	37 000	6 188
24	6 051	8 449	36 530	2 886	1 872	1 526	1 078	1 144	9 902	6 153	22 090	7 057
25	6 837	7 694	29 890	2 769	1 775	1 493	1 056	1 135	5 075	11 830	14 370	7 169
26	10 240	7 043	105 200	2 644	1 801	1 408	1 020	1 133	3 499	6 181	11 490	7 497
27	33 650	6 926	45 000	2 577	1 834	1 348	1 073	1 084	2 784	4 504	11 300	5 576
28	39 800	6 435	25 990	2 533	1 867	1 327	1 212	1 078	2 739	3 715	18 210	5 071
29	46 450	6 224	28 500	2 426	1 895	1 323	1 222	1 082	3 679	3 371	11 800	5 117
30	30 090		27 050	2 983	1 735	1 332	1 209	1 100	3 438	5 976	9 775	6 908
31	23 090		17 900		1 661		1 463	1 100		4 423		6 882
Average	15 070	20 490	15 670	5 633	2 039	2 167	1 168	1 976	2 420	3 211	29 820	8 154
Lowest	6 051	6 274	4 297	2 426	1 262	1 323	1 020	1 078	0 964	1 372	3 410	5 071
Highest	46 450	73 310	105 200	16 630	2 582	7 377	11 820	9 902	11 830	93 040	15 900	
Peak flow	57 480	141 400	135 300	18 630	5 514	9 799	2 049	17 100	12 930	15 270	130 000	22 130
Day of peak	29	4	26	1	15	6	31	3	24	25	3	5
Monthly total (million cu m)	40 35	51 34	41 98	14 60	5 46	5 62	3 13	5 29	6 27	8 60	77 29	21 84
Runoff (mm)	71	90	74	26	10	10	5	9	11	15	136	38
Rainfall (mm)	125	44	111	12	18	48	35	62	191	58	214	46

**Statistics of monthly data for previous record (Nov 1963 to Dec 1983—incomplete or missing months total 0.1 years)**

Mean flows	Avg	14 940	13 360	12 910	8 214	6 144	3 789	3 201	3 778	4 552	8 084	11 980	13 240
Low	5 421	2 673	1 730	2 928	2 155	1 141	1 549	1 232	1 418	1 083	1 926	4 563	
(year)	1973	1973	1973	1974	1974	1970	1976	1983	1972	1972	1973	1971	
High	32 310	26 350	31 390	15 810	15 410	6 355	7 969	12 720	14 240	26 860	31 370	33 340	
(year)	1982	1978	1979	1983	1983	1969	1968	1966	1965	1976	1965	1978	
Runoff	Avg	70	57	61	37	29	17	15	18	21	38	54	62
Low	25	11	8	13	10	5	7	6	6	5	9	21	
High	152	112	148	72	72	29	37	60	65	126	143	157	
Rainfall	Avg	87	62	79	53	70	57	64	68	75	78	81	85
(1966-1983)	Low	38	15	18	8	18	8	19	18	15	19	19	31
	High	140	120	144	118	127	129	101	132	215	176	165	251

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	8 910	8 664	103
Lowest yearly mean		3 716	1973
Highest yearly mean		11 380	1969
Lowest monthly mean	1 168	1 083	Oct 1972
Highest monthly mean	29 820	33 340	Dec 1978
Lowest daily mean	0 964	0 510	14 Jul 1964
Highest daily mean	105 200	203 200	3 Jan 1982
Peak	141 400	289 700	4 Jan 1982
10 %ile	25 000	18 750	133
50 %ile	4 168	4 938	84
95 %ile	1 126	1 378	82
Annual total (million cu m)	281.80	273.40	103
Annual runoff (mm)	494	480	103
Annual rainfall (mm)	964	859	112
[1941-70 rainfall average (mm)]		880]	

**Factors affecting flow regime**

● Natural to within 10% at 95 percentile flow.

**Station description**

Velocity-area station. Informal flat V weir installed 1976



**023006 South Tyne at Featherstone****1984**Measuring authority: NWA  
First year: 1966Grid reference: NY 672611  
Level stn. (m OD) 131.70Catchment area (sq km): 321.9  
Max alt. (m OD): 893**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	22 240	40 070	26 890	6 248	1 852	2 524	1 848	1 662	5 840	7 101	6 413	18 840
2	28 750	52 850	12 490	5 658	1 838	2 704	1 681	1 820	2 726	5 596	29 430	15 370
3	12 640	51 430	17 740	5 373	1 796	6 562	1 519	15 470	21 740	11 790	157 500	13 800
4	8 442	75 770	38 720	4 877	1 780	11 270	1 410	10 180	13 100	9 935	43 890	10 680
5	31 290	42 490	18 640	4 816	1 724	20 250	1 347	4 079	4 799	5 695	14 470	19 430
6	18 930	37 920	13 190	5 045	1 710	11 800	1 309	8 921	3 144	4 541	13 960	12 320
7	14 750	21 160	9 212	5 520	1 649	5 028	1 253	12 700	2 442	4 561	21 480	10 760
8	8 180	17 570	7 353	5 124	1 602	3 142	1 188	5 066	2 383	19 510	13 970	9 525
9	6 519	11 420	6 287	6 011	1 568	2 468	1 173	3 190	12 390	8 257	27 770	8 401
10	29 540	30 460	6 550	9 101	1 672	2 113	1 173	2 409	5 495	5 375	20 420	6 356
11	48 130	33 540	7 591	13 900	1 657	1 871	1 173	1 921	6 950	4 603	13 750	5 569
12	53 410	18 040	7 667	6 446	1 527	1 771	1 161	1 692	4 270	3 998	41 610	4 985
13	43 280	10 400	6 256	6 188	1 461	54 030	1 142	1 521	4 766	5 751	18 840	4 606
14	14 630	8 467	5 720	6 508	1 427	9 819	1 161	1 398	8 071	14 560	10 210	4 446
15	10 420	7 093	4 971	5 074	1 415	5 227	1 173	1 360	5 639	7 547	7 967	4 329
16	15 490	6 172	4 487	4 311	1 411	3 810	1 151	1 309	14 810	5 187	9 203	3 916
17	14 190	7 505	4 310	3 754	1 427	3 058	1 136	1 274	35 410	5 073	12 280	5 928
18	9 893	7 529	4 070	4 549	1 424	2 646	1 127	1 238	8 360	31 930	13 990	9 047
19	7 798	4 698	3 845	4 688	1 375	2 403	1 127	1 192	5 451	57 150	11 460	33 980
20	6 305	4 527	3 513	5 090	1 459	2 178	1 117	1 137	7 640	41 230	8 121	38 630
21	5 462	4 946	3 288	4 153	1 775	2 277	1 096	1 114	28 400	18 680	17 480	15 450
22	5 486	8 589	3 153	3 245	1 900	4 745	1 086	1 096	60 800	53 290	34 060	10 060
23	5 186	8 287	6 084	2 872	1 726	3 445	1 049	1 096	20 740	18 960	27 170	13 560
24	4 969	6 119	18 230	2 655	3 381	3 054	1 012	1 096	12 270	21 550	13 180	13 310
25	4 725	5 326	22 140	2 449	2 962	3 224	0 995	1 082	7 069	20 290	16 670	12 040
26	4 722	4 965	25 350	2 344	2 275	2 446	0 981	1 024	5 417	11 960	10 700	8 759
27	7 850	4 657	17 900	2 244	2 044	2 326	1 041	1 010	9 173	8 375	53 450	6 165
28	12 100	4 298	21 880	2 135	2 078	2 325	1 173	1 124	10 900	10 100	43 730	8 417
29	28 560	9 534	12 670	2 009	1 848	2 256	1 439	1 867	7 659	16 620	16 920	13 190
30	22 450		10 250	1 911	1 610	2 102	1 193	1 295	13 320	11 340	10 110	11 550
31	14 500		7 666		1 533		2 458	2 841		7 924		8 701
Average	16 800	18 820	11 550	4 810	1 771	6 096	1 255	3 038	11 710	14 790	24 670	11 680
Lowest	4 722	4 298	3 153	1 911	1 375	1 771	0 981	1 010	2 383	3 998	6 413	3 916
Highest	53 410	75 770	38 720	13 900	3 381	54 030	2 458	15 470	60 800	57 150	157 500	38 630
Peak flow	198 800	132 800	56 270	25 680	5 564	155 000	3 402	41 400	114 800	102 100	309 900	89 010
Day of peak	12	4	1	11	24	13	31	6	16	19	3	20
Monthly total (million cu m)	45 00	47 16	30 94	12 47	4 74	15 80	3 36	8 14	30 34	39 61	63 95	31 29
Runoff (mm)	140	146	96	39	15	49	10	25	94	123	199	97
Rainfall (mm)	189	83	113	22	42	118	49	87	191	169	245	112

**Statistics of monthly data for previous record (Oct 1966 to Dec 1983—incomplete or missing months total 0.2 years)**

Mean flows	Avg	16 050	11 690	13 480	8 710	6 551	5 035	4 602	5 954	8 906	12 570	15 650	14 600
	Low	10 540	5 122	5 860	1 850	1 311	1 465	1 329	0 960	1 467	1 181	6 616	5 110
	(year)	1970	1968	1975	1974	1980	1978	1976	1976	1972	1972	1983	1971
	High	25 510	19 760	30 210	16 210	13 850	12 740	9 385	13 140	17 780	30 330	22 890	28 810
	(year)	1975	1974	1979	1979	1983	1980	1968	1967	1968	1967	1974	1974
Runoff	Avg	134	88	112	70	55	41	38	50	72	105	126	122
	Low	88	40	49	15	11	12	11	8	12	10	53	43
	High	212	148	251	131	115	103	78	109	143	252	184	240
Rainfall	Avg	133	85	117	73	88	89	93	104	125	136	142	127
	Low	74	31	44	11	40	44	43	25	40	27	63	42
	High	213	166	199	133	178	215	141	182	239	331	240	215

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	10 520	10 310	102
Lowest yearly mean		7 630	1971
Highest yearly mean		12 920	1979
Lowest monthly mean	1 255	0 960	Aug 1976
Highest monthly mean	24 670	30 330	Oct 1967
Lowest daily mean	0 981	0 713	26 Aug 1976
Highest daily mean	157 500	174 000	3 Jan 1982
Peak	309 900	292 100	2 Jan 1982
10 %ile	25 710	24 350	106
50 %ile	5 717	5 202	110
95 %ile	1 130	1 363	83
Annual total (million cu m)	332 70	325 30	102
Annual runoff (mm)	1033	1011	102
Annual rainfall (mm)	1420	1312	108
[1941-70 rainfall average (mm)]		1441]	

**Factors affecting flow regime**

● Natural to within 10% at 95 percentile flow.

**Station description**

Compound Crump weir. Two crests 15.2 m and 29.6 m broad

**025001 Tees at Broken Scar****1984**Measuring authority: NWA  
First year: 1956Grid reference: NZ 259137  
Level stn (m OD): 37.20Catchment area (sq km): 818.4  
Max alt (m OD): 893**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	73 920	31 340	32 630	14 370	3 167	3 931	3 291	3 784	4 900	6 464	8 783	24 110
2	78 260	105 400	30 510	12 250	2 840	4 237	3 483	3 784	3 810	3 881	13 160	29 610
3	42 400	142 700	13 820	10 450	3 083	7 985	3 581	18 290	9 480	6 494	108 800	31 330
4	26 920	213 600	44 920	9 400	3 440	7 578	3 415	17 360	19 020	13 940	49 750	26 080
5	39 690	100 300	36 450	8 608	3 557	13 780	3 473	5 705	4 395	4 953	19 430	35 300
6	33 420	121 500	24 370	9 297	3 462	12 260	3 257	3 988	3 294	3 602	14 860	22 740
7	30 590	50 940	18 680	8 598	3 352	5 694	2 777	9 296	2 947	3 662	32 840	26 600
8	21 870	50 230	15 250	7 788	3 109	3 472	2 871	5 131	2 597	7 916	30 580	24 010
9	17 500	30 890	14 120	8 209	3 273	3 380	3 073	3 460	3 200	7 220	44 100	20 990
10	22 590	35 590	14 560	9 445	5 382	3 379	3 040	3 839	4 022	3 210	55 360	12 680
11	66 400	43 540	16 830	20 980	5 341	3 300	3 078	3 742	3 543	2 963	25 240	10 740
12	43 230	34 950	15 150	12 590	3 553	3 312	3 193	3 381	3 485	3 343	62 820	9 048
13	123 800	23 790	14 000	11 280	3 295	14 560	3 544	3 261	3 709	5 871	48 080	8 657
14	37 740	17 450	13 500	13 270	3 274	10 020	3 282	3 141	6 958	6 907	24 390	9 365
15	29 900	16 860	12 090	12 090	3 155	4 118	3 465	3 354	4 916	5 043	19 960	10 940
16	42 460	15 730	8 005	8 724	4 156	6 043	3 475	3 414	3 555	3 302	22 490	9 326
17	48 100	15 650	7 857	7 148	3 796	4 616	3 192	3 287	34 970	3 118	31 600	14 910
18	30 200	18 250	7 112	5 556	3 761	3 355	2 800	3 249	8 186	39 480	41 930	14 490
19	22 920	14 600	6 779	9 453	3 890	3 320	2 687	3 322	3 909	60 600	32 410	42 740
20	18 570	13 300	6 184	13 500	3 947	3 258	2 999	3 224	3 268	44 620	21 540	41 940
21	17 620	13 380	5 848	10 930	4 091	3 285	2 962	3 119	7 177	23 610	44 890	25 530
22	15 760	19 170	4 961	7 191	4 069	4 109	3 054	3 663	51 470	32 010	82 870	21 150
23	15 950	18 730	5 139	4 814	3 368	3 852	2 788	3 704	19 620	20 540	97 380	24 750
24	15 060	12 800	45 440	3 948	3 516	3 379	2 732	3 646	9 778	28 120	49 250	21 940
25	13 860	10 980	46 390	4 778	4 387	4 506	2 697	3 635	5 281	30 960	32 630	15 690
26	12 180	9 882	68 410	4 590	3 818	3 481	2 698	3 364	3 501	16 570	26 240	14 190
27	25 210	9 160	36 970	3 811	3 624	3 181	2 843	3 386	3 075	9 882	43 040	7 908
28	34 730	8 623	29 580	3 741	3 872	3 418	3 022	3 524	5 115	8 162	59 310	6 298
29	42 930	9 908	23 230	3 167	4 725	3 337	3 081	3 668	4 719	19 480	30 840	8 517
30	36 380		19 860	3 163	5 408	3 218	2 976	2 966	11 660	20 370	19 990	15 670
31	28 430		17 340		3 744		3 290	3 213		12 270		13 220
Average	35 760	41 700	21 160	8 771	3 789	5 245	3 101	4 706	8 519	14 790	39 820	19 370
Lowest	12 180	8 623	4 961	3 163	2 840	3 181	2 687	2 966	2 597	2 963	8 783	6 298
Highest	123 800	213 600	68 410	20 980	5 408	14 560	3 581	18 290	51 470	60 600	108 800	42 740
Peak flow	304 200	444 800	142 100	24 810	5 968	50 140	4 684	39 410	96 310	96 120	172 700	77 520
Day of peak	13	4	25	11	30	13	13	3	22	19	3	20
Monthly total (million cu m)	95 78	104 50	56 68	22 74	10 15	13 60	8 30	12 61	22 08	39 62	103 20	51 88
Runoff (mm)	117	128	69	28	12	17	10	15	27	48	126	63
Rainfall (mm)	183	67	91	13	29	68	28	87	144	113	195	66

**Statistics of monthly data for previous record (Oct 1956 to Dec 1983)**

Mean flows	Avg	28 800	22 890	23 070	18 110	10 420	6 412	6 178	9 329	10 870	17 940	22 260	27 470
Low (year)	Low	2 906	2 804	5 482	2 539	2 008	0 502	1 794	0 458	0 638	2 707	4 060	5 778
High (year)	High	50 240	51 540	68 660	60 870	27 020	15 270	15 090	24 830	24 350	53 940	51 580	50 040
Runoff	Avg	94	68	76	57	34	20	20	31	34	59	70	90
Low	Low	10	8	18	8	7	2	6	2	2	9	13	19
High	High	164	152	225	193	88	48	49	81	77	177	163	164
Rainfall	Avg	118	87	95	76	81	76	83	98	99	104	111	123
Low	Low	51	23	29	10	18	22	32	23	19	27	25	43
High	High	183	175	224	150	167	182	150	190	222	226	221	268

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	17 110	16 960	101
Lowest yearly mean		9 383	1973
Highest yearly mean		23 220	1979
Lowest monthly mean	3 101	0 458	Aug 1959
Highest monthly mean	41 700	68 660	Mar 1979
Lowest daily mean	2 597	0 023	16 Oct 1959
Highest daily mean	213 600	391 500	3 Jan 1982
Peak	444 800	679 300	23 Mar 1968
10 %ile	42 100	42 870	98
50 %ile	8 696	7 836	111
95 %ile	3 032	1 276	238
Annual total (million cu m)	541 10	535 20	101
Annual runoff (mm)	661	654	101
Annual rainfall (mm)	1084	1151	94
[1941-70 rainfall average (mm)]		1226]	

**Factors affecting flow regime**

- Reservoir(s) in catchment
- Abstraction for public water supplies
- Augmentation from surface water and/or groundwater

**Station description**

Compound Crump weir 64 m broad with two low sills each 4.6 m broad. Excess flows from Cocker Beck (R Skerne) diverted into catchment via Baydale Beck. See 025010 Mowden Bridge

**027002 Wharfe at Flint Mill Weir****1984**Measuring authority: YWA  
First year: 1937Grid reference: SE 422473  
Level stn. (m OD) 13.67Catchment area (sq km): 758.9  
Max alt. (m OD): 704**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	47 640	68 540	9 542	9 615	2 723	2 064	2 272	1 527	4 929	11 590	15 870	17 900
2	69 080	125 500	32 950	8 788	2 571	2 154	2 210	1 980	10 100	7 573	17 680	18 720
3	67 770	117 600	16 180	7 838	2 416	3 060	2 103	3 355	15 170	6 229	119 500	24 410
4	34 940	106 000	19 840	7 402	2 208	3 206	1 820	12 360	70 920	10 630	61 260	26 210
5	39 500	88 200	21 200	6 907	2 713	3 606	1 743	4 478	15 580	8 445	31 470	23 870
6	46 770	125 400	15 110	6 845	2 626	6 265	1 657	3 025	7 396	5 747	21 810	21 360
7	44 670	66 620	11 960	6 700	2 429	4 465	1 663	3 154	5 166	4 522	20 260	15 000
8	27 600	72 300	10 060	6 393	2 326	3 604	1 671	3 477	4 492	21 080	19 320	12 390
9	20 340	39 610	8 868	6 221	2 268	2 907	1 652	2 693	7 183	30 490	29 170	12 010
10	34 220	31 770	8 099	6 075	2 603	2 545	1 613	2 264	10 750	12 070	55 300	10 870
11	94 090	31 810	8 158	6 398	2 722	2 422	1 610	2 035	5 577	13 090	27 880	9 669
12	47 680	25 580	8 182	7 164	2 482	2 462	1 671	1 849	5 801	12 430	45 530	8 882
13	113 200	21 010	8 176	6 268	2 291	29 390	1 839	1 749	4 409	8 535	40 760	8 318
14	58 370	16 830	7 875	5 814	2 206	31 930	2 012	1 710	23 080	18 170	25 060	8 303
15	38 900	14 200	7 724	5 793	2 146	9 774	1 885	1 612	16 530	17 300	18 290	8 053
16	63 180	12 820	7 449	5 679	2 118	5 739	1 816	1 576	7 954	10 340	14 910	7 554
17	69 880	11 660	7 028	5 269	2 157	4 551	1 803	1 560	23 940	8 268	14 970	8 916
18	41 960	10 740	6 687	4 867	2 229	4 010	1 754	1 551	17 170	39 600	16 850	14 230
19	30 080	10 040	6 376	4 547	2 147	3 461	1 759	1 506	8 075	59 350	14 090	48 390
20	23 120	9 341	6 152	4 522	2 107	3 114	1 682	1 464	5 626	42 980	12 220	43 840
21	18 720	9 621	5 840	4 697	2 174	2 740	1 622	1 451	6 917	20 500	36 060	44 840
22	17 260	10 770	5 681	4 393	2 785	2 684	1 529	1 462	19 390	66 690	87 750	32 920
23	16 890	13 760	5 731	4 044	3 003	2 846	1 550	1 449	22 860	45 650	90 070	38 560
24	14 790	10 930	29 290	3 843	2 797	3 102	1 449	1 470	11 440	39 440	54 010	29 820
25	12 720	9 447	30 280	3 647	2 407	2 850	1 389	1 403	7 276	57 900	42 050	22 680
26	12 660	8 809	41 030	3 394	2 268	2 786	1 396	1 382	5 458	34 950	30 180	24 510
27	22 820	8 344	23 600	3 208	2 795	2 718	1 537	1 398	4 305	24 440	22 590	16 270
28	33 760	7 772	20 860	3 014	3 000	2 575	1 623	1 424	3 730	34 260	60 260	12 650
29	57 340	7 570	17 350	2 889	2 228	2 496	1 453	1 389	4 974	32 190	31 970	11 540
30	58 770		13 140	2 781	2 184	2 339	1 425	1 429	12 970	38 830	21 900	13 390
31	52 540		11 040		2 069		1 533	1 529		22 690		16 970
Average	42 880	37 680	13 920	5 501	2 426	5 262	1 701	2 281	12 300	24 710	36 630	19 780
Lowest	12 660	7 570	5 681	2 781	2 069	2 064	1 389	1 382	3 730	4 522	12 220	7 554
Highest	113 200	125 500	41 030	9 615	3 003	31 930	2 272	12 360	70 920	66 690	119 500	48 390
Peak flow	175 100	169 200	55 880	10 330	3 701	92 390	2 340	20 540	147 700	107 000	168 500	81 980
Day of peak	13	4	2	1	23	13	1	4	4	22	3	19
Monthly total (million cu m)	114 80	94 40	37 28	14 26	6 50	13 64	4 56	6 11	31 88	66 18	94 94	52 97
Runoff (mm)	151	124	49	19	9	18	6	8	42	87	125	70
Rainfall (mm)	217	83	78	18	37	67	20	73	160	155	191	80

**Statistics of monthly data for previous record (Jan 1937 to Dec 1983—incomplete or missing months total 17.7 years)**

Mean flows	Avg	27 340	23 700	21 670	15 530	11 550	7 760	7 842	11 470	13 370	18 070	22 920	27 360
Low	4 471	2 974	6 741	4 389	2 312	1 546	1 675	0 992	1 420	3 026	5 027	10 230	10 230
(year)	1963	1983	1961	1982	1980	1957	1976	1976	1959	1972	1937	1963	1963
High	39 260	54 590	53 940	35 240	26 750	18 520	16 440	41 340	33 520	54 000	51 090	62 090	62 090
(year)	1961	1966	1981	1970	1967	1972	1963	1956	1988	1967	1963	1963	1965
Runoff	Avg	96	76	76	53	41	27	28	40	46	64	78	97
	Low	16	8	24	15	8	5	6	4	5	11	17	36
	High	139	174	190	120	94	63	58	146	115	191	174	219
Rainfall	Avg	113	89	81	73	77	74	87	104	101	106	117	115
	Low	32	20	13	8	13	10	22	14	8	32	17	41
	High	248	197	222	147	181	183	185	226	241	229	264	233

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	17 000	17 360	98
Lowest yearly mean		11 420	1975
Highest yearly mean		23 300	1968
Lowest monthly mean	1 701	0 992	Aug 1976
Highest monthly mean	42 880	62 090	Dec 1965
Lowest daily mean	1 382	0 425	23 Jun 1957
Highest daily mean	125 500	233 600	4 Dec 1960
Peak	175 100	380 000	3 Jan 1982
10 %ile	44 400	41 350	107
50 %ile	8 136	9 708	84
95 %ile	1 523	2 218	69
Annual total (million cu m)	537 60	547 80	98
Annual runoff (mm)	708	722	98
Annual rainfall (mm)	1179	1137	104
[1941-70 rainfall average (mm)]		1161]	

**Factors affecting flow regime**

- Reservoir(s) in catchment.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from surface water and/or groundwater.

**Station description**

Broad crested weir. 47.3 m broad, rated by current meter gauging from a cableway 1.5 km upstream of the station. Pre-1/10/65 rating may be less reliable.



**027025 Rother at Woodhouse Mill****1984**Measuring authority: YWA  
First year: 1961Grid reference: SK 432857  
Level stn. (m OD) 28.72Catchment area (sq km) 352.2  
Max alt. (m OD) 367**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	14 830	23 030	3 947	4 447	1 958	2 453	1 378	1 538	1 319	2 050	2 699	4 291
2	15 370	22 850	5 765	4 041	1 980	2 875	1 435	9 288	1 225	1 748	4 851	3 863
3	12 570	13 470	4 290	3 783	1 910	5 446	1 420	3 043	3 828	2 684	19 510	5 263
4	8 486	13 970	4 048	3 580	1 915	3 456	1 385	3 719	5 528	2 063	9 078	4 595
5	6 689	13 190	3 993	3 371	1 892	3 192	1 345	1 983	1 808	1 719	5 214	4 317
6	5 660	42 470	3 504	3 447	1 815	2 868	1 349	1 890	1 465	1 607	8 139	3 735
7	5 248	30 980	3 245	3 304	1 775	2 504	1 316	3 478	1 342	1 572	6 885	3 315
8	4 591	17 060	3 070	3 123	1 779	2 121	1 297	1 984	1 310	1 679	8 256	3 087
9	3 953	11 510	2 975	3 187	1 821	2 004	1 280	1 551	1 499	1 580	9 769	3 112
10	3 736	8 397	3 456	3 074	2 539	1 852	1 270	1 439	1 407	1 500	10 180	3 289
11	3 796	7 180	4 308	3 090	2 107	1 776	1 268	1 356	1 307	1 457	6 202	2 893
12	7 867	6 270	4 733	2 861	1 806	1 740	1 819	1 306	1 278	1 449	6 108	2 765
13	24 210	5 623	4 277	2 654	1 759	1 744	1 670	1 296	1 391	1 372	7 214	2 901
14	16 780	5 016	4 556	2 656	1 776	1 670	1 535	1 566	1 875	1 407	5 366	3 361
15	9 750	4 614	3 956	2 807	1 753	1 629	1 480	1 495	1 488	1 411	4 490	2 903
16	27 040	4 355	3 594	2 654	1 759	1 551	1 513	1 367	1 386	1 364	3 895	6 367
17	20 060	4 190	3 350	2 471	1 695	1 509	1 326	1 268	3 972	1 902	4 271	7 013
18	11 780	3 950	3 208	2 376	1 675	1 548	1 348	1 219	1 807	3 992	5 879	5 989
19	8 385	3 838	3 159	2 365	1 733	1 540	1 355	1 214	1 613	2 743	4 556	7 243
20	6 297	3 908	3 097	2 297	1 826	1 979	1 338	1 265	3 198	2 946	6 273	6 124
21	5 305	4 765	2 976	2 249	3 335	1 624	1 354	1 318	5 559	2 210	8 686	5 511
22	5 254	4 988	2 868	2 159	8 287	1 529	1 287	1 301	4 437	2 866	15 250	4 892
23	5 422	4 251	3 950	2 120	2 875	1 477	1 228	1 255	3 834	2 662	18 510	4 891
24	4 908	3 796	25 730	2 083	2 211	1 453	1 226	1 418	2 487	4 694	12 490	6 658
25	4 216	3 601	18 120	2 061	4 048	1 499	1 211	1 278	1 896	5 244	7 240	5 471
26	5 671	3 847	13 290	2 055	2 789	1 447	1 238	1 232	1 674	3 225	5 459	4 750
27	11 190	4 109	8 653	2 044	5 322	1 442	1 212	1 289	1 632	2 662	4 914	3 978
28	18 410	4 054	6 896	1 974	4 864	1 411	1 214	1 213	1 713	3 269	5 745	3 473
29	33 640	3 842	5 842	2 002	2 966	1 439	1 165	1 231	2 588	2 762	4 689	3 803
30	28 830		5 592	1 948	2 353	1 387	1 206	1 255	2 923	3 183	4 082	3 891
31	22 660		4 932		2 125		1 222	1 263		3 229		3 712
Average	11 700	9 763	5 657	2 743	2 531	2 006	1 345	1 849	2 293	2 395	7 528	4 434
Lowest	3 736	3 601	2 868	1 948	1 675	1 387	1 165	1 213	1 225	1 364	2 699	2 765
Highest	33 640	42 470	25 730	4 447	8 287	5 446	1 819	9 288	5 559	5 244	19 510	7 243
Peak flow	39 600	51 580	36 810	4 650	17 540	7 625	2 587	18 100	12 250	6 574	25 670	8 417
Day of peak	16	6	24	1	22	3	12	2	3	25	3	19
Monthly total (million cu m)	31.33	24.46	15.15	7.11	6.78	5.20	3.60	4.95	5.94	6.42	19.51	11.88
Runoff (mm)	89	69	43	20	19	15	10	14	17	18	55	34
Rainfall (mm)	128	65	63	11	62	37	17	68	107	63	112	49

**Statistics of monthly data for previous record (Oct 1961 to Dec 1983—incomplete or missing months total 2.5 years)**

Mean flows	Avg	6 325	6 944	6 684	5 074	3 932	2 946	1 979	1 989	2 229	2 754	4 569	6 203
Low (year)	1 287	1 424	1 830	1 400	1 569	1 166	0 934	0 760	0 712	0 693	1 023	2 393	
High (year)	12 020	22 440	14 330	13 160	10 110	10 840	4 907	3 323	7 786	6 596	8 200	18 140	1965
Runoff	Avg	48	48	51	37	30	22	15	15	16	21	34	47
Low	10	10	14	10	12	9	7	6	5	5	8	18	
High	91	154	109	97	77	80	37	25	57	50	60	138	
Rainfall	Avg	67	61	66	60	63	60	57	61	67	59	74	72
Low	20	18	13	13	15	11	10	6	6	18	12	33	13
High	107	180	132	122	157	202	170	101	171	140	150	194	

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	4 501	4 289	105
Lowest yearly mean		2 540	1984
Highest yearly mean		6 364	1966
Lowest monthly mean	1 345	0 693	Oct 1972
Highest monthly mean	11 700	22 440	Feb 1977
Lowest daily mean	1 165	0 393	14 Jun 1973
Highest daily mean	42 470	78 320	29 Dec 1978
Peak	51 580	105 400	23 Jun 1982
10 %ile	8 536	9 256	92
50 %ile	2 974	2 611	114
95 %ile	1 256	0 920	137
Annual total (million cu m)	142.30	135.30	105
Annual runoff (mm)	404	384	105
Annual rainfall (mm)	782	767	102
[1941-70 rainfall average (mm)]		764]	

**Factors affecting flow regime**

- Reservoir(s) in catchment.
- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from effluent returns.

**Station description**

Velocity-area station rated by current meter gauging from a cableway 35m downstream

**027035 Aire at Kildwick Bridge****1984**Measuring authority: YWA  
First year: 1970Grid reference: SE 013457  
Level stn. (m OD) 87.32Catchment area (sq km): 282.3  
Max alt. (m OD): 594**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	14 870	39 040	3 335	3 380	0 884	0 518	0 342	0 377	1 786	2 950	7 937	9 214
2	29 750	42 940	7 636	2 823	0 912	0 541	0 337	0 517	2 036	2 306	12 780	7 965
3	27 320	32 430	4 443	2 456	0 921	1 644	0 324	3 947	7 945	2 381	57 150	10 120
4	15 480	30 080	7 008	2 175	0 927	0 935	0 330	1 795	9 231	3 201	33 730	8 283
5	19 350	29 930	5 367	1 956	0 859	1 533	0 314	0 691	2 621	2 074	18 390	8 872
6	16 780	40 050	4 258	2 070	0 852	0 927	0 304	0 634	1 505	1 595	11 510	6 977
7	15 350	27 770	3 605	2 215	0 850	0 705	0 300	0 965	1 100	1 468	8 548	5 700
8	9 982	29 270	3 142	1 914	0 828	0 548	0 288	0 581	0 941	5 957	8 865	5 050
9	7 693	14 520	2 812	1 751	0 821	0 465	0 277	0 451	1 703	6 817	16 910	4 764
10	13 480	11 810	2 620	1 820	1 114	0 431	0 273	0 382	1 495	3 622	18 150	4 148
11	41 540	9 280	2 698	2 263	0 892	0 416	0 277	0 353	1 052	5 457	10 690	3 770
12	30 180	8 034	2 783	1 791	0 789	0 664	0 484	0 352	0 977	4 814	17 690	3 486
13	42 130	6 525	2 507	1 553	0 757	6 278	0 441	0 341	2 242	3 402	17 180	3 315
14	28 650	5 527	2 381	1 491	0 760	4 913	0 351	0 335	10 100	4 008	10 890	3 597
15	16 940	4 900	2 194	1 530	0 729	2 095	0 396	0 335	3 716	3 758	8 276	3 182
16	35 730	4 782	2 010	1 381	0 730	1 408	0 314	0 322	2 187	2 979	6 742	2 779
17	29 010	4 551	1 836	1 255	0 721	1 050	0 276	0 291	11 540	3 633	6 255	4 957
18	18 490	4 155	1 752	1 171	0 665	0 869	0 285	0 283	4 372	18 830	5 623	10 040
19	11 790	3 618	1 686	1 134	0 630	0 746	0 268	0 269	2 548	18 840	4 998	23 620
20	8 711	3 342	1 602	1 116	0 892	0 643	0 261	0 252	1 928	16 550	5 905	20 320
21	7 081	4 186	1 584	1 018	0 699	0 547	0 260	0 238	8 540	8 296	21 300	17 400
22	6 293	4 994	1 347	0 954	0 772	0 571	0 242	0 244	18 670	27 600	35 580	14 470
23	6 068	4 235	1 588	0 903	0 540	0 552	0 236	0 237	11 750	18 200	33 540	13 510
24	5 171	3 579	12 400	0 871	0 453	0 440	0 231	0 239	5 155	28 130	23 430	11 090
25	4 789	3 261	9 013	0 851	0 502	0 388	0 247	0 232	3 430	24 570	21 430	11 290
26	5 100	2 980	9 092	0 833	0 540	0 361	0 227	0 223	2 552	15 880	14 250	10 270
27	13 230	2 758	6 640	0 842	0 657	0 374	0 220	0 229	2 046	11 090	14 330	7 160
28	17 080	2 524	8 257	0 835	0 582	0 356	0 244	0 243	1 908	17 220	22 160	6 080
29	28 820	2 239	6 836	0 841	0 466	0 401	0 250	0 259	1 842	17 170	12 650	6 223
30	28 010		5 427	0 849	0 430	0 381	0 247	0 293	4 068	17 430	9 330	6 747
31	21 150		4 247		0 411		0 400	1 273		10 750		6 263
Average	18 580	13 220	4 261	1 534	0 729	1 057	0 298	0 554	4 366	9 967	18 540	8 408
Lowest	4 789	2 239	1 347	0 833	0 411	0 356	0 220	0 223	0 941	1 468	4 998	2 779
Highest	42 130	42 940	12 400	3 380	1 114	6 278	0 484	3 947	18 670	27 600	57 150	23 620
Peak flow	59 640	56 530	21 190	3 718	1 491	13 480	0 705	6 843	25 710	43 780	63 430	30 720
Day of peak	13	1	24	1	10	13	12	3	3	24	3	19
Monthly total (million cu m)	49 77	33 12	11 41	3 98	1 95	2 74	0 80	1 48	11 32	26 70	42 87	22 52
Runoff (mm)	176	117	40	14	7	10	3	5	40	95	152	80
Rainfall (mm)	222	82	67	16	32	76	21	71	152	157	178	78

**Statistics of monthly data for previous record (Dec 1968 to Dec 1983—incomplete or missing months total 0.2 years)**

Mean flows	Avg	10 280	7 956	7 952	4 501	3 076	2 569	1 649	2 658	3 583	6 890	10 340	10 450
Lowest (year)	Low	4 463	4 737	2 652	0 922	0 611	0 605	0 564	0 289	1 147	0 788	3 583	3 175
High (year)	High	17 150	12 830	22 520	9 586	8 174	6 416	5 927	7 020	10 360	17 570	15 580	20 820
Runoff	Avg	98	69	75	41	29	24	16	25	33	65	95	99
Low	Low	42	41	25	8	6	6	5	3	11	7	33	30
High	High	163	114	214	88	78	59	56	67	95	167	143	198
Rainfall	Avg	118	77	107	69	78	79	74	89	115	110	132	120
Low	Low	67	35	44	3	10	23	17	17	27	37	55	42
High	High	194	139	233	135	142	155	151	151	250	213	187	238

**Summary statistics****Factors affecting flow regime**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	6 598	5 984	110
Lowest yearly mean		3 655	1971
Highest yearly mean		8 060	1981
Lowest monthly mean	0 298	0 289	Aug 1976
Highest monthly mean	18 580	22 520	Mar 1981
Lowest daily mean	0 220	0 180	23 Aug 1976
Highest daily mean	57 150	79 900	27 Oct 1980
Peak	63 430	98 130	5 Dec 1972
10 %ile	18 510	14 960	124
50 %ile	2 567	3 056	84
95 %ile	0 257	0 541	48
Annual total (million cu m)	208 60	188 80	110
Annual runoff (mm)	739	669	110
Annual rainfall (mm)	1152	1168	99
[1941-70 rainfall average (mm)]		1126]	

● Reservoir(s) in catchment.

**Station description**

Velocity-area station with bridge invert as control. Current meter gauging from cableway downstream. Low flow control removed in 1969. New rating used from 1970.

**027041 Derwent at Buttercrambe****1984**Measuring authority: YWA  
First year: 1973Grid reference: SE 731587  
Level stn. (m OD) 9.50Catchment area (sq km): 1586.0  
Max alt. (m OD): 454**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	22 190	79 400	17 060	25 980	10 450	8 434	5 635	4 473	4 347	9 284	8 693	15 530
2	25 710	77 950	19 780	24 030	10 350	9 249	5 659	4 692	5 185	7 359	8 908	14 610
3	54 120	77 050	19 810	22 460	10 150	9 118	5 679	5 664	7 214	6 741	23 740	14 680
4	36 690	71 400	20 860	20 920	10 130	9 040	5 635	6 425	15 760	6 576	46 640	16 140
5	27 230	67 170	20 260	19 560	9 953	9 518	5 491	5 918	11 840	6 312	44 490	14 800
6	24 550	58 270	18 120	19 170	9 727	10 150	5 355	5 415	7 502	5 795	23 220	14 310
7	22 750	52 760	16 800	19 230	9 455	8 964	5 248	5 165	6 174	5 552	18 270	13 200
8	21 100	46 200	16 010	18 000	9 501	8 302	5 160	5 062	5 571	5 885	15 950	12 460
9	22 720	38 570	15 440	17 210	9 494	8 126	5 141	4 893	5 285	6 599	16 280	12 110
10	22 740	33 510	15 540	17 290	9 535	7 826	5 107	4 693	4 933	6 795	19 500	11 780
11	28 460	31 390	21 000	17 390	9 665	7 670	5 116	4 415	4 737	5 777	17 150	11 220
12	30 270	29 110	21 490	16 250	9 032	7 536	5 198	4 284	4 637	5 823	16 620	11 040
13	40 890	27 010	18 120	15 430	8 674	7 543	5 797	4 192	4 559	5 611	26 490	11 030
14	44 180	25 220	17 050	15 030	8 503	7 836	5 714	4 169	4 754	5 423	26 400	10 950
15	34 870	24 020	16 420	14 680	8 320	7 734	5 485	4 180	4 651	5 279	30 040	10 720
16	42 770	23 100	15 730	14 250	8 240	7 439	5 536	4 185	4 734	5 203	24 590	10 400
17	53 280	22 200	15 070	13 760	8 156	8 929	5 428	4 172	5 668	5 362	26 450	11 170
18	36 750	21 250	14 630	13 350	8 132	9 044	5 148	4 157	6 042	6 578	30 430	12 770
19	28 940	20 360	14 330	13 120	8 267	7 464	5 070	4 126	5 743	9 619	32 660	12 220
20	25 950	19 860	14 080	12 710	8 165	6 896	4 975	4 055	5 044	8 795	24 290	13 410
21	23 590	21 920	13 780	12 400	8 442	6 649	4 837	3 973	4 995	7 604	24 630	17 210
22	22 850	23 330	13 460	11 940	10 250	6 489	4 762	3 944	5 040	6 694	33 110	15 280
23	25 590	20 970	13 440	11 730	10 260	6 416	4 760	3 951	6 788	6 662	40 810	15 270
24	33 220	19 150	44 840	11 540	8 625	6 344	4 692	4 038	16 070	7 365	33 940	16 560
25	28 340	18 360	69 500	11 210	8 254	6 263	4 664	4 068	20 910	14 790	24 860	18 560
26	33 100	17 900	74 460	11 080	8 517	5 903	4 647	3 978	10 040	13 130	20 720	16 270
27	59 190	17 690	80 110	10 920	9 597	5 723	4 362	3 921	7 660	8 904	18 860	13 910
28	79 030	17 430	60 130	10 820	11 750	5 637	4 678	3 910	6 823	8 373	18 860	12 450
29	91 000	17 050	42 550	10 660	9 984	5 725	4 861	3 987	7 123	9 241	17 870	11 910
30	90 910		32 010	10 610	8 821	5 666	4 661	3 960	9 056	9 026	16 740	12 210
31	85 800		27 880		8 221		4 507	3 949		9 094		13 090
Average	39 320	35 160	26 430	15 420	9 246	7 588	5 129	4 452	7 296	7 444	24 370	13 460
Lowest	21 100	17 050	13 440	10 610	8 132	5 637	4 362	3 910	4 347	5 203	8 693	10 400
Highest	91 000	79 400	80 110	25 980	11 750	10 150	5 797	6 425	20 910	14 790	46 640	18 560
Peak flow	92 130	83 090	82 210	27 330	12 680	11 120	6 385	6 712	27 110	18 840	51 870	20 120
Day of peak	29	1	27	1	28	5	13	4	25	25	5	25
Monthly total (million cu m)	105.30	88.09	70.78	39.98	24.76	19.67	13.74	11.92	18.91	19.94	63.18	36.05
Runoff (mm)	66	56	45	25	16	12	9	8	12	13	40	23
Rainfall (mm)	132	37	86	11	41	36	23	50	125	65	111	36

**Statistics of monthly data for previous record (Oct 1973 to Dec 1983)**

Mean flows	Avg	29 800	28 250	28 350	18 830	15 980	11 030	7 895	8 076	8 098	15 250	15 170	27 050
Low (year)	1983	16 780	15 260	8 799	6 927	7 852	5 342	3 884	3 215	4 730	5 554	7 404	13 880
High (year)	1983	48 190	49 290	56 110	33 670	29 840	21 260	11 810	15 440	14 710	36 810	25 220	42 740
	1977	1977	1978	1979	1979	1979	1979	1981	1980	1976	1976	1980	1978
Runoff	Avg.	50	43	48	31	27	18	13	14	13	26	25	46
	Low	28	23	15	11	13	9	7	5	8	9	12	23
	High	81	75	95	55	50	35	20	26	24	62	41	72
Rainfall	Avg.	74	51	71	48	63	57	61	63	77	81	62	90
	Low	34	18	6	12	22	11	18	10	21	21	28	46
	High	111	101	143	102	142	149	123	126	192	158	92	180

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	16 200	17 790	91
Lowest yearly mean		11 720	1975
Highest yearly mean		25 320	1979
Lowest monthly mean	4 452	3 215	Aug 1976
Highest monthly mean	39 320	56 110	Mar 1979
Lowest daily mean	3 910	2 697	23 Aug 1976
Highest daily mean	91 000	121 400	29 Dec 1978
Peak	92 130	124 800	5 Jan 1982
10 %ile	32 620	36 260	90
50 %ile	10 770	13 220	81
95 %ile	4 249	4 955	86
Annual total (million cu m)	512.30	561.30	91
Annual runoff (mm)	323	354	91
Annual rainfall (mm)	753	798	94
[1941-70 rainfall average (mm)]		784]	

**Factors affecting flow regime**

- Abstraction for public water supplies.

**Station description**

Crump weir 19.987 m broad. Catchment area includes 33.2 sq km 027033 Sea Cut at Scarborough, but flow data do not include flood diversions



**027053 Nidd at Birstwith****1984**Measuring authority: YWA  
First year: 1975Grid reference: SE 230603  
Level stn. (m OD) 67.40Catchment area (sq km): 217.6  
Max alt. (m OD): 705**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	13 710	26 170	4 231	2 459	1 125	0 988	0 815	0 829	0 687	1 444	5 826	7 212
2	36 060	34 660	3 683	2 313	1 128	0 983	0 799	1 027	0 578	1 224	10 970	4 598
3	24 510	53 200	2 436	2 233	1 122	1 337	0 861	1 748	4 811	1 588	37 180	4 755
4	13 490	88 790	2 466	2 076	1 108	1 126	0 724	1 099	2 953	1 613	15 680	5 749
5	16 080	53 140	4 696	1 978	1 090	1 295	0 788	0 914	1 137	1 228	11 660	6 702
6	14 000	56 860	3 199	2 019	1 068	1 112	0 785	0 904	1 012	1 102	11 780	5 738
7	13 470	25 960	2 479	1 987	1 048	1 021	0 811	0 944	0 937	1 060	11 120	5 384
8	11 670	20 870	2 103	1 907	1 044	0 957	0 716	0 896	0 903	2 196	7 964	5 258
9	7 763	13 690	1 791	1 864	1 038	0 943	0 765	0 867	0 932	1 886	9 691	3 595
10	8 463	12 810	1 861	1 899	1 086	0 919	0 777	0 904	0 884	1 320	10 890	2 730
11	17 400	8 229	1 931	1 937	1 045	0 897	0 762	0 740	0 868	1 502	9 663	2 836
12	41 230	6 963	1 872	1 745	1 024	0 923	0 769	0 802	0 889	1 446	9 019	2 580
13	63 400	6 398	1 869	1 683	1 015	2 434	0 773	0 614	0 956	1 260	7 843	2 579
14	20 380	6 069	1 883	1 666	1 005	1 483	0 776	0 510	1 575	1 567	6 606	2 687
15	11 530	5 849	1 805	1 673	0 988	1 068	0 768	0 419	1 178	1 298	6 131	2 533
16	33 180	5 609	1 701	1 607	1 004	0 979	0 810	0 436	1 029	1 185	6 033	2 476
17	24 410	3 511	1 653	1 569	1 001	0 973	0 874	0 438	2 299	1 307	6 596	3 526
18	14 460	3 136	1 619	1 542	1 003	0 826	0 877	0 431	1 278	5 981	7 468	3 807
19	12 290	2 962	1 572	1 516	0 997	0 861	0 880	0 424	1 028	4 087	6 145	12 170
20	11 470	2 945	1 556	1 504	0 994	0 853	0 877	0 462	0 971	3 483	5 148	14 370
21	7 237	3 294	1 565	1 475	1 054	0 863	0 859	0 392	1 285	2 814	11 260	11 950
22	4 327	3 408	1 534	1 452	1 447	0 904	0 853	0 427	2 411	6 527	23 860	7 843
23	3 873	3 093	1 708	1 432	1 088	0 885	0 835	0 424	2 229	5 993	47 600	6 613
24	3 483	2 861	7 817	1 421	1 021	0 867	0 867	0 428	1 410	11 960	22 980	6 298
25	3 338	2 789	10 720	1 411	1 022	0 843	0 781	0 411	1 158	9 162	15 040	6 913
26	3 652	2 766	9 343	1 401	1 009	0 835	0 825	0 415	1 059	6 793	12 540	6 095
27	8 768	2 781	6 891	1 293	1 280	0 826	0 876	0 413	1 012	6 252	12 470	5 437
28	10 080	2 720	6 882	1 106	1 157	0 834	0 864	0 406	1 012	10 590	13 940	3 390
29	15 390	2 731	4 474	1 135	1 036	0 831	0 834	0 416	1 241	7 566	11 470	3 331
30	14 690		2 837	1 130	1 021	0 830	0 858	0 485	2 499	7 700	10 680	3 556
31	10 820		2 713		0 927		0 792	0 674		6 481		3 223
Average	15 960	16 010	3 319	1 681	1 064	1 017	0 814	0 655	1 407	3 859	12 830	5 346
Lowest	3 338	2 720	1 534	1 106	0 927	0 826	0 716	0 392	0 578	1 060	5 148	2 476
Highest	63 400	88 790	10 720	2 459	1 447	2 434	0 880	1 748	4 811	11 960	47 600	14 370
Peak flow	204 400	186 600	23 190	2 591	1 888	4 454	1 333	2 607	25 270	27 450	73 180	21 720
Day of peak	13	4	25	1	22	13	20	3	3	24	23	20
Monthly total (million cu m)	42 74	40 11	8 89	4 36	2 85	2 64	2 18	1 75	3 65	10 33	33 24	14 32
Runoff (mm)	196	184	41	20	13	12	10	8	17	47	153	66
Rainfall (mm)	250	90	87	19	45	66	18	76	165	165	196	89

**Statistics of monthly data for previous record (Apr 1975 to Dec 1983—incomplete or missing months total 0.1 years)**

Mean flows	Avg	9 384	7 580	9 983	3 661	3 290	2 090	1 248	1 523	2 087	5 427	6 955	11 030
Lowest	Low	6 927	3 215	2 497	1 704	1 135	1 015	0 912	0 886	1 263	1 508	1 893	3 612
(year)		1980	1982	1976	1982	1980	1975	1976	1976	1977	1978	1975	1975
Highest	High	12 810	14 520	21 140	7 247	7 061	3 131	1 556	2 493	3 920	15 120	12 000	20 280
(year)		1982	1977	1979	1979	1983	1982	1982	1979	1976	1976	1982	1979
Runoff	Avg	116	85	123	44	40	25	15	19	25	67	83	136
Low	Low	85	36	31	20	14	12	11	11	15	19	23	44
High	High	158	161	260	86	87	37	19	31	47	186	143	250
Rainfall	Avg	136	96	145	67	90	88	50	94	128	135	137	173
(1976-1983)	Low	106	57	75	11	27	16	34	22	80	36	62	80
	High	193	182	243	144	149	185	68	147	253	223	208	258

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	5 283	5 357	99
Lowest yearly mean		4 915	1978
Highest yearly mean		7 148	1979
Lowest monthly mean	0 655	0 886	Aug 1976
Highest monthly mean	16 010	21 140	Mar 1979
Lowest daily mean	0 392	0 617	22 Jun 1975
Highest daily mean	88 790	109 400	28 Dec 1978
Peak	204 400	203 400	8 Mar 1979
10 %ile	12 300	13 110	94
50 %ile	1 680	2 744	61
95 %ile	0 624	1 064	59
Annual total (million cu m)	167 10	169 00	99
Annual runoff (mm)	768	777	99
Annual rainfall (mm)	1266	1339	95
[1941-70 rainfall average (mm)]		860]	

**Factors affecting flow regime**

- Reservoir(s) in catchment.
- Abstraction for public water supplies.
- Augmentation from surface water and/or groundwater

**Station description**

Velocity-area station with natural rock control

028009 Trent at Colwick

1984

Measuring authority: STWA  
First year: 1958

Grid reference: SK 620399  
Level stn. (m OD) 16.00

Catchment area (sq km) 7486.0  
Max alt. (m OD): 636

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	118 300	345 800	77 160	87 880	44 320	46 370	31 550	27 210	26 490	44 400	58 680	105 200
2	228 700	365 900	82 600	80 820	43 410	55 680	29 590	48 820	25 930	36 770	58 980	112 700
3	296 900	430 900	81 810	75 140	42 890	74 980	31 100	48 540	26 780	37 040	176 200	112 100
4	259 700	385 300	75 640	71 890	43 390	77 980	30 630	57 920	50 270	41 490	229 200	108 500
5	188 900	358 200	81 760	67 790	43 060	75 540	30 370	75 260	47 910	35 400	150 000	94 080
6	165 500	372 700	74 670	65 090	41 840	71 820	28 740	47 820	32 290	32 790	103 500	88 390
7	142 700	475 700	70 660	64 590	40 310	61 260	28 540	56 210	28 770	30 590	96 570	79 490
8	146 300	467 900	67 570	61 960	39 490	51 120	26 800	52 310	27 490	31 730	90 340	71 120
9	129 600	342 100	64 470	60 410	40 160	46 290	25 950	38 590	27 310	33 750	128 600	66 550
10	109 600	222 300	63 090	59 800	46 100	41 860	26 110	33 250	30 700	31 410	163 500	65 640
11	110 000	183 700	66 920	61 440	47 680	40 840	27 100	31 210	33 860	29 770	125 200	63 570
12	118 200	159 600	93 380	59 160	41 980	39 110	27 270	29 980	29 810	29 400	100 000	60 730
13	176 600	142 900	83 290	56 590	39 130	38 730	37 680	29 160	28 630	29 010	154 100	60 040
14	195 300	122 600	82 370	56 440	38 310	38 650	36 190	35 110	43 480	28 650	133 400	67 880
15	163 500	111 900	81 560	55 670	38 680	38 810	43 570	52 610	47 730	28 290	102 100	64 940
16	169 400	106 800	74 340	54 170	38 500	39 340	36 930	38 810	36 830	28 540	84 140	82 900
17	232 600	100 000	66 830	53 290	39 660	36 780	31 190	33 500	40 750	29 020	72 920	99 860
18	169 100	94 020	63 260	51 600	37 920	34 900	29 600	31 200	51 740	36 860	67 880	95 010
19	132 400	87 890	61 980	51 950	35 780	34 120	28 620	28 530	36 950	46 570	67 360	92 600
20	110 900	87 640	60 790	51 470	35 060	38 410	29 560	26 770	58 250	38 560	68 600	92 530
21	98 540	91 030	59 290	50 710	47 950	46 120	28 500	26 810	87 380	36 530	131 200	95 200
22	96 810	91 790	58 200	49 230	101 000	40 590	26 430	26 350	75 280	42 490	174 700	90 010
23	114 600	92 300	59 350	48 000	88 070	37 440	26 660	26 540	53 870	58 760	266 300	114 700
24	134 800	83 330	185 800	46 480	51 360	38 360	25 760	26 080	43 530	53 430	326 400	137 800
25	103 100	77 720	239 600	46 060	51 540	35 660	26 060	26 350	37 420	66 260	304 700	168 300
26	118 800	75 850	259 800	45 900	51 490	32 720	25 680	25 960	35 120	59 450	216 600	131 100
27	225 600	79 570	225 700	44 380	48 940	32 480	25 230	25 200	33 680	47 800	138 000	103 600
28	298 200	80 730	165 700	45 460	64 400	31 680	25 320	23 740	32 550	43 790	131 500	87 650
29	365 600	79 690	130 800	44 770	52 250	32 200	23 960	24 360	37 190	45 680	122 400	79 240
30	369 800		114 000	44 620	43 510	32 380	23 920	24 400	44 210	51 700	110 700	89 880
31	379 900		100 600		41 890		25 240	24 970		75 930		94 570
Average	182 900	197 100	99 130	57 090	47 100	44 720	29 030	35 600	40 410	40 710	138 500	92 770
Lowest	96 810	75 850	58 200	44 380	35 060	31 680	23 920	23 740	25 930	28 790	58 680	60 040
Highest	379 900	475 700	259 800	87 880	101 000	77 980	43 570	75 260	87 380	75 930	326 400	168 300
Peak flow	386 000	499 600	276 800	94 460	122 000	93 750	50 450	85 000	94 930	86 380	329 900	193 300
Day of peak	29	7	26	1	22	3	15	5	21	31	24	24
Monthly total (million cu m)	489 80	493 90	265 50	148 00	126 20	115 90	77 75	95 35	104 70	109 00	358 90	248 50
Runoff (mm)	65	66	35	20	17	15	10	13	14	15	48	33
Rainfall (mm)	108	57	60	9	60	51	23	67	101	61	121	48

Statistics of monthly data for previous record (Oct 1958 to Dec 1983)

Mean flows	Avg	135 900	130 900	110 300	86 980	71 310	51 250	42 760	44 070	48 680	65 070	86 000	122 900
	Low	45 980	49 730	47 180	35 240	32 250	24 690	19 450	18 450	20 270	22 110	32 920	46 260
	(year)	1963	1963	1976	1976	1976	1976	1976	1976	1959	1959	1964	1975
	High	207 900	385 700	227 600	176 000	175 100	87 220	99 980	73 030	114 600	177 300	226 800	353 700
	(year)	1959	1977	1981	1966	1969	1982	1968	1966	1965	1960	1960	1965
Runoff	Avg	49	43	39	30	26	18	15	16	17	23	30	44
	Low	16	16	17	12	12	9	7	7	7	8	11	17
	High	74	125	81	61	63	30	36	26	40	63	79	127
Rainfall	Avg	71	55	60	58	61	59	57	70	69	64	72	78
	Low	23	8	13	11	18	14	18	21	3	12	38	15
	High	138	175	116	116	144	148	114	120	149	141	145	173

Summary statistics

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	83 280	82 810	101
Lowest yearly mean		47 020	1976
Highest yearly mean		119 300	1966
Lowest monthly mean	29 030	18 450	Aug 1976
Highest monthly mean	197 100	385 700	Feb 1977
Lowest daily mean	23 740	14 700	23 Aug 1976
Highest daily mean	475 700	815 500	6 Dec 1960
Peak	499 600	1228 000	22 Dec 1976
10 %ile	167 200	169 700	99
50 %ile	56 300	56 680	99
95 %ile	26 360	26 980	98
Annual total (million cu m)	2634 00	2613 00	101
Annual runoff (mm)	352	349	101
Annual rainfall (mm)	766	774	99
[1941-70 rainfall average (mm)]		776]	

Station description  
Velocity-area station

Factors affecting flow regime

- Reservoir(s) in catchment.
- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions
- Augmentation from surface water and/or groundwater.
- Augmentation from effluent returns

**028010 Derwent at Longbridge Weir****1984**Measuring authority: STWA  
First year: 1935Grid reference: SK 356363  
Level stn. (m OD) 44.40Catchment area (sq km): 1054.0  
Max alt. (m OD): 636**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	52 090	77 330	14 190	15 830	7 534	7 227	4 719	4 094	3 900	6 027	12 210	27 570
2	67 350	130 000	17 040	15 020	7 024	5 310	4 714	8 272	3 604	5 517	13 910	26 450
3	59 140	111 500	14 750	14 240	7 009	11 260	4 606	5 939	4 236	5 963	47 210	24 450
4	49 630	91 180	14 840	13 670	6 970	9 768	4 538	6 920	7 613	5 495	43 370	17 380
5	43 590	76 820	14 600	13 150	6 923	9 754	4 617	5 399	4 491	5 174	30 280	16 590
6	38 500	143 200	13 760	12 740	6 759	8 565	4 717	6 268	3 584	4 837	25 850	15 410
7	37 700	121 300	13 330	12 350	6 798	7 807	4 710	6 513	3 299	4 768	21 850	14 220
8	34 720	85 470	13 090	12 050	6 772	7 007	4 797	5 296	3 358	4 938	22 240	13 220
9	27 810	57 280	12 740	11 780	6 784	6 651	4 777	4 801	3 507	4 954	25 010	13 160
10	23 450	49 370	12 540	11 620	8 004	6 329	4 850	4 509	3 657	4 806	29 160	13 220
11	23 470	44 830	13 260	11 820	7 254	6 251	4 981	4 374	3 533	4 697	23 120	12 210
12	26 320	40 260	13 620	11 080	6 896	6 054	5 472	4 331	3 367	4 759	22 270	11 900
13	67 040	33 040	13 320	10 830	6 756	5 823	5 431	4 222	3 730	4 692	23 750	11 630
14	57 030	26 100	13 610	10 680	6 694	5 802	5 338	4 299	4 315	4 462	20 000	12 300
15	45 260	24 110	12 900	10 760	6 711	5 589	5 731	4 326	4 735	4 567	17 920	11 530
16	68 580	22 510	12 300	10 340	6 767	5 398	5 372	4 142	4 034	4 731	16 260	13 120
17	59 220	20 950	11 880	9 983	6 663	5 211	4 910	4 130	5 469	4 551	15 470	15 800
18	47 240	19 890	11 530	9 780	5 857	5 044	5 196	3 949	4 880	6 935	15 310	15 710
19	40 430	18 770	11 330	9 505	5 745	5 064	4 893	3 885	4 095	7 200	13 850	20 950
20	34 980	18 100	11 160	9 421	5 605	5 290	4 637	3 889	5 281	7 960	16 620	19 680
21	31 690	18 730	10 900	9 267	7 229	5 034	4 461	3 993	6 563	8 949	22 460	19 950
22	30 280	19 080	10 730	9 066	12 640	4 977	4 449	3 890	12 270	10 130	36 340	19 650
23	29 930	17 600	11 630	8 693	8 001	4 857	4 157	3 524	9 857	10 620	51 150	19 920
24	24 110	16 280	42 430	8 431	7 083	4 702	4 014	3 466	7 196	12 490	40 690	22 850
25	19 020	15 630	35 290	8 106	7 508	4 801	4 005	3 360	5 948	15 180	29 630	21 540
26	20 480	15 440	34 180	7 825	7 041	4 694	3 960	3 320	5 545	13 270	24 630	20 500
27	32 460	15 570	27 140	7 806	8 295	4 580	3 960	3 239	5 078	12 040	26 530	17 630
28	41 310	15 210	22 820	7 717	11 130	4 651	4 217	3 266	5 305	13 120	32 450	16 220
29	66 150	14 580	20 140	7 594	7 198	4 727	3 820	3 191	5 960	12 580	29 820	15 970
30	74 800		19 220	7 456	6 603	4 782	3 757	3 281	7 880	13 180	28 190	16 140
31	70 580		17 170		6 408		3 916	3 666		13 610		15 390
Average	43 210	46 900	16 690	10 620	7 247	6 100	4 636	4 444	5 210	7 813	25 920	17 170
Lowest	19 020	14 580	10 730	7 456	5 605	4 580	3 757	3 191	3 299	4 462	12 210	11 530
Highest	74 800	143 200	42 430	15 830	12 640	11 260	5 731	8 272	12 270	15 180	51 150	27 570
Peak flow	99 740	168 200	59 270	17 910	26 780	13 190	7 778	10 680	16 210	16 310	69 320	29 210
Day of peak	30	7	24	1	28	3	10	2	22	25	23	3
Monthly total (million cu m)	115 70	117 50	44 71	27 53	19 41	15 81	12 42	11 90	13 50	20 93	67 18	45 99
Runoff (mm)	110	111	42	26	18	15	12	11	13	20	64	44
Rainfall (mm)	184	95	76	12	57	54	26	71	134	96	145	65

**Statistics of monthly data for previous record (Jan 1936 to Dec 1983—incomplete or missing months total 0.5 years)**

Mean flows	Avg	29 360	28 910	22 940	17 530	12 820	10 110	8 721	9 084	10 610	13 690	21 980	26 260
Lowest (year)	Low	9 751	8 086	9 110	7 677	5 517	4 530	4 211	3 176	3 399	3 782	4 302	8 480
High (year)	High	1963	1963	1976	1976	1956	1957	1976	1952	1952	1947	1975	1975
Runoff	Avg	75	67	58	43	33	25	22	23	26	35	54	67
Low	Low	25	19	23	19	14	11	11	8	8	10	11	22
High	High	170	176	177	97	67	44	73	86	82	89	134	225
Rainfall (1935-1983)	Avg	102	80	75	65	70	69	78	83	83	89	107	100
Low	Low	33	8	16	8	15	15	16	10	3	17	16	20
High	High	215	236	185	132	163	188	158	185	199	178	232	246

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre 1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	16 210	17 610	92
Lowest yearly mean		9 625	1976
Highest yearly mean		25 200	1966
Lowest monthly mean	4 444	3 176	Aug 1952
Highest monthly mean	46 900	88 690	Dec 1965
Lowest daily mean	3 191	1 133	22 Apr 1958
Highest daily mean	143 200	334 200	10 Dec 1965
Peak	168 200		
10 %ile	35 950	36 160	99
50 %ile	9 938	11 890	84
95 %ile	3 770	4 719	80
Annual total (million cu m)	512 60	555 70	92
Annual runoff (mm)	486	527	92
Annual rainfall (mm)	1015	1001	101
[1941 70 rainfall average (mm)]		1020]	

**Factors affecting flow regime**

- Reservoir(s) in catchment.
- Flow influenced by groundwater abstraction and/or recharge
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions
- Augmentation from surface water and/or groundwater
- Augmentation from effluent returns.

**Station description**

Velocity-area station with a broad crested horseshoe weir as control



**030001 Witham at Claypole Mill****1984**Measuring authority: AWA  
First year 1959Grid reference: SK 842480  
Level stn (m OD) 16.90Catchment area (sq km): 297.9  
Max alt (m OD): 158**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1 598	8 218	2 587	2 938	1 250	1 617	0 742	0 406	0 621	0 691	0 744	1 607
2	3 166	8 301	2 603	2 833	1 194	1 482	0 701	1 037	0 577	0 647	0 918	1 594
3	4 101	6 380	2 409	2 739	1 219	1 597	0 682	0 993	0 577	0 716	1 377	1 736
4	3 329	6 466	2 227	2 582	1 178	1 549	0 628	1 825	0 949	0 689	1 011	1 692
5	2 685	6 140	2 370	2 396	1 256	1 669	0 715	1 171	0 615	0 772	0 813	1 620
6	2 270	8 569	2 130	2 517	1 085	1 703	0 587	0 947	0 567	0 637	1 509	1 679
7	2 045	9 670	2 020	2 377	1 026	1 803	0 594	1 486	0 581	0 542	1 763	1 637
8	1 757	7 526	1 947	2 271	1 062	1 555	0 593	0 958	0 562	0 657	1 616	1 539
9	1 602	5 824	1 921	2 212	0 880	1 180	0 618	0 761	0 454	0 681	1 673	1 447
10	1 596	5 138	1 947	2 292	0 902	0 870	0 708	0 695	0 445	0 593	1 506	1 345
11	1 637	4 782	1 956	2 285	0 817	0 801	0 642	0 615	0 471	0 604	1 207	1 341
12	1 585	4 441	1 962	2 131	0 754	0 756	0 611	0 574	0 474	0 597	1 140	1 196
13	1 689	4 235	1 882	2 116	0 738	0 783	0 505	0 587	0 421	0 592	1 969	1 267
14	2 110	4 042	1 930	2 030	0 782	0 728	0 664	0 749	0 758	0 530	1 891	1 217
15	1 961	3 826	1 917	2 123	0 744	0 688	0 689	0 895	0 573	0 548	1 510	1 189
16	3 914	3 731	1 839	2 017	0 736	0 663	0 620	0 655	0 485	0 520	1 202	1 292
17	3 967	3 564	1 753	1 912	0 742	0 787	0 630	0 652	0 969	0 592	1 323	1 546
18	2 942	3 368	1 700	1 825	0 677	0 892	0 553	0 705	0 683	0 680	1 548	1 634
19	2 542	3 250	1 686	1 794	0 671	0 630	0 451	0 702	0 539	0 661	1 482	1 645
20	2 384	3 162	1 629	1 750	0 668	0 960	0 658	0 649	1 931	0 608	1 731	1 573
21	2 214	3 048	1 607	1 722	0 850	1 280	0 579	0 669	1 323	0 552	3 099	1 467
22	2 153	2 830	1 546	1 684	2 768	1 091	0 610	0 631	0 923	0 687	4 448	1 573
23	2 342	2 709	1 578	1 580	1 326	1 005	0 635	0 635	0 879	0 618	7 552	1 482
24	2 330	2 558	10 010	1 526	1 016	0 910	0 636	0 617	0 906	0 857	8 008	2 726
25	1 978	2 491	9 111	1 427	1 064	0 862	0 564	0 637	0 685	0 929	3 790	3 080
26	3 806	2 498	9 002	1 421	1 067	0 790	0 510	0 622	0 599	0 699	2 673	2 258
27	8 382	2 563	7 030	1 305	1 858	0 736	0 547	0 602	0 609	0 604	2 229	1 946
28	9 691	2 619	4 675	1 369	2 292	0 697	0 513	0 604	0 678	0 613	2 058	1 682
29	16 020	2 700	4 083	1 349	1 564	0 725	0 519	0 616	0 682	0 624	1 893	1 622
30	11 580		3 885	1 325	1 263	0 704	0 516	0 599	0 772	0 823	1 759	1 994
31	11 870		3 495		1 438		0 449	0 585		0 779		2 149
Average	3 911	4 643	3 109	1 994	1 125	1 050	0 602	0 770	0 709	0 656	2 181	1 670
Lowest	1 585	2 491	1 546	1 305	0 668	0 630	0 449	0 406	0 421	0 520	0 744	1 189
Highest	16 020	9 670	10 010	2 938	2 768	1 803	0 742	1 825	1 931	0 929	8 008	3 080
Peak flow	18 230	12 250	15 650	3 217	5 190	2 088	0 863	3 736	3 851	1 619	12 210	3 822
Day of peak	29	7	24	1	22	7	10	4	20	24	23	24
Monthly total (million cu m)	10 48	11 63	8 33	5 17	3 01	2 72	1 61	2 06	1 84	1 76	5 65	4 47
Runoff (mm)	35	39	28	17	10	9	5	7	6	6	19	15
Rainfall (mm)	97	36	58	13	63	33	12	77	88	46	84	34

**Statistics of monthly data for previous record (May 1959 to Dec 1983)**

Mean	Avg	2 767	3 254	2 967	2 245	1 744	1 046	0 773	0 786	0 727	0 941	1 410	2 178
flows	Low	0 673	0 491	0 453	0 364	0 311	0 184	0 062	0 136	0 232	0 218	0 278	0 311
	(year)	1965	1976	1976	1976	1976	1976	1976	1976	1959	1959	1959	1964
	High	5 527	10 690	6 995	5 748	4 651	2 904	2 119	2 376	2 886	3 906	6 526	7 879
	(year)	1961	1977	1979	1979	1983	1983	1968	1980	1968	1960	1960	1965
Runoff	Avg	25	27	27	20	16	9	7	7	6	8	12	20
	Low	6	4	4	3	3	2	1	1	2	2	2	3
	High	50	87	63	50	42	25	19	21	25	35	57	71
Rainfall	Avg	52	41	48	51	50	52	52	61	52	49	58	57
	Low	20	3	8	10	11	3	9	5	3	5	24	13
	High	117	140	92	103	130	148	132	127	127	137	115	142

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> /s)	1 858	1 729	107
Lowest yearly mean		0 594	1976
Highest yearly mean		2 807	1979
Lowest monthly mean	0 602	0 062	Jul 1976
Highest monthly mean	4 643	10 690	Feb 1977
Lowest daily mean	0 406	0 021	24 Jul 1976
Highest daily mean	16 020	31 600	11 Feb 1977
Peak	18 230	37 540	11 Feb 1977
10 %ile	3 605	3 819	94
50 %ile	1 335	1 000	134
95 %ile	0 543	0 328	165
Annual total (million cu m)	58 75	54 56	108
Annual runoff (mm)	197	183	108
Annual rainfall (mm)	641	621	103
[1941-70 rainfall average (mm)]		622	

**Factors affecting flow regime**

- Flow influenced by groundwater abstraction and/or recharge
- Abstraction for public water supplies
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from surface water and/or groundwater.

**Station description**

Compound broad crested weir. Range 0.03-42.9 cu m/s

**032001 Nene at Orton****1984**Measuring authority: AWA  
First year: 1939Grid reference: TL 166972  
Level stn. (m OD) 3.35Catchment area (sq km): 1634.3  
Max alt. (m OD): 224**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3.130	45.310	11.900	15.320	4.583	4.767	2.765	2.360	1.147	4.337	3.861	9.796
2	5.961	32.620	11.590	11.890	4.301	4.479	2.686	2.589	1.224	5.221	3.099	8.252
3	20.020	33.170	10.190	12.510	4.660	5.393	2.635	2.795	1.295	4.111	1.980	15.580
4	26.140	33.110	9.086	11.130	4.024	8.801	2.550	3.745	1.464	4.021	2.055	15.420
5	23.460	39.330	9.204	10.850	3.368	8.204	2.461	5.721	2.020	4.059	2.998	13.770
6	12.620	48.090	8.543	10.580	3.236	6.965	2.328	2.984	2.007	2.543	3.605	12.210
7	10.120	53.940	8.371	10.980	1.684	7.772	2.418	4.703	2.175	2.144	8.369	14.240
8	9.674	55.320	7.867	10.100	2.860	7.967	2.396	4.829	2.009	3.999	6.374	12.180
9	9.301	53.310	6.486	8.530	3.501	5.620	2.355	2.045	1.783	3.494	3.097	10.330
10	7.411	36.720	6.487	8.157	3.805	4.440	2.183	1.594	1.514	3.690	3.114	9.019
11	7.323	32.560	6.299	7.970	3.944	4.014	2.065	2.127	1.505	3.514	2.293	7.594
12	6.404	30.300	8.130	8.017	3.267	3.674	2.068	2.125	1.594	3.337	3.024	5.475
13	7.843	17.130	9.659	8.354	3.393	2.525	2.141	1.957	1.698	3.242	4.955	7.037
14	8.810	14.930	9.855	7.950	3.875	2.571	2.299	1.907	1.835	3.168	9.700	8.194
15	9.945	13.920	8.438	5.760	3.870	2.590	2.468	2.002	2.125	3.139	6.846	5.477
16	10.120	8.339	5.672	6.830	3.913	2.525	2.619	2.030	2.444	2.873	4.339	4.305
17	16.200	12.920	7.355	6.848	4.130	2.518	2.602	1.968	2.602	3.036	3.633	9.550
18	13.170	12.860	7.449	6.368	3.940	2.450	2.666	1.863	3.412	3.849	2.345	11.640
19	8.752	11.940	7.109	5.247	3.840	2.262	2.495	1.715	3.040	4.391	5.302	11.100
20	8.227	10.650	6.949	5.501	3.790	3.213	2.351	1.655	2.126	4.555	2.608	11.620
21	5.745	10.270	6.846	5.121	4.536	3.766	2.280	1.625	3.752	4.420	4.558	14.960
22	5.153	9.997	6.132	4.719	11.650	3.350	2.143	1.583	4.496	4.258	29.400	12.730
23	6.577	9.587	4.992	4.642	14.750	2.792	2.115	1.940	3.478	8.027	38.000	11.110
24	18.670	10.300	13.570	4.456	4.216	2.191	2.036	2.629	2.767	5.498	43.080	13.480
25	18.090	8.900	44.980	3.960	7.621	2.641	2.030	2.730	2.431	7.011	40.640	18.560
26	13.300	8.580	52.250	3.354	4.578	2.315	1.617	2.684	1.807	8.622	41.390	17.480
27	48.820	10.070	48.310	3.043	8.445	2.443	1.104	2.682	1.314	4.950	32.010	16.790
28	53.420	11.190	37.360	2.905	9.888	2.361	1.205	2.311	2.348	4.988	13.810	13.240
29	53.700	12.090	30.630	3.692	9.673	2.816	1.295	1.614	3.643	4.147	13.780	10.340
30	51.930		21.710	4.946	6.233	2.734	1.746	1.318	4.010	4.108	7.290	9.412
31	50.070		17.620		5.751		2.306	1.215		3.800		14.980
Average	17.750	23.710	14.550	7.324	5.204	4.005	2.207	2.421	2.302	4.211	11.590	11.420
Lowest	3.130	8.339	4.992	2.905	1.684	2.191	1.104	1.215	1.147	2.144	1.980	4.305
Highest	53.700	55.320	52.250	15.320	14.750	8.801	2.765	5.721	4.496	8.622	43.080	17.480
Peak flow	54.850	56.250	53.980	16.160	18.700	11.490	4.086	8.971	6.595	11.160	49.640	17.790
Day of peak	28	8	26	1	23	4	18	7	30	25	24	28
Monthly total (million cu m)	47.53	59.40	38.97	18.98	13.94	10.38	5.91	6.48	5.97	11.28	30.03	30.57
Runoff (mm)	29	36	24	12	9	6	4	4	4	7	18	19
Rainfall (mm)	85	46	49	9	64	41	15	45	77	51	93	43

**Statistics of monthly data for previous record (Jan 1939 to Dec 1983—incomplete or missing months total 1.3 years)**

Mean flows	Avg	16.940	18.170	16.560	10.250	7.447	5.018	3.746	3.709	3.242	4.460	9.322	12.820
Low (year)	Low	2.020	1.608	1.440	1.299	0.915	0.536	0.842	0.482	0.738	1.013	1.141	1.641
High (year)	High	48.200	49.750	79.660	35.040	27.690	13.010	20.060	20.470	20.090	22.140	40.580	42.580
Runoff	Avg	28	27	27	18	12	8	6	6	5	7	15	21
Low	Low	3	2	2	2	2	1	1	1	1	2	2	3
High	High	79	74	131	56	45	21	33	34	32	36	64	70
Rainfall	Avg	54	42	48	42	54	54	52	64	53	52	60	56
(1940-1983)	Low	20	3	5	8	10	5	6	3	3	5	10	13
	High	109	111	132	91	117	156	123	110	127	130	155	124

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m³ s⁻¹)	8.837	9.267	95
Lowest yearly mean		2.776	1944
Highest yearly mean		16.170	1979
Lowest monthly mean	2.207	0.482	Aug 1944
Highest monthly mean	23.710	79.660	Mar 1947
Lowest daily mean	1.104	0.085	29 Jul 1948
Highest daily mean	55.320	320.000	18 Mar 1947
Peak	56.250	382.300	18 Mar 1947
10 %ile	16.990	24.510	69
50 %ile	4.718	4.581	103
95 %ile	1.657	1.048	158
Annual total (million cu m)	279.40	292.40	96
Annual runoff (mm)	171	179	96
Annual rainfall (mm)	618	631	98
[1941-70 rainfall average (mm)]		624	

**Factors affecting flow regime**

- Reservoir(s) in catchment.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from effluent returns.

**Station description**

Group of weirs and sluices with regulated by-pass channels. High flows measured at alternative station Wansford 032010. Some river regulation by sluices. Harwell single path ultrasonic gauging station installed 1975

033002 Bedford Ouse at Bedford

1984

Measuring authority: AWA  
First year: 1933  
Grd reference: TL 055495  
Level stn. (m OD) 24.75  
Catchment area (sq km): 1460.0  
Max alt. (m OD): 247

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	8 000	33 300	13 100	13 500	4 400	5 900	2 800	1 580	1 980	4 600	3 500	17 700
2	10 900	30 100	11 400	11 700	4 600	6 800	2 700	1 740	1 820	4 100	3 600	16 700
3	29 000	29 000	10 100	9 800	4 600	7 700	2 800	1 820	1 900	3 900	5 000	20 500
4	40 200	29 500	7 700	9 600	4 500	9 300	3 000	2 900	1 900	3 800	5 400	22 100
5	24 900	38 000	8 700	9 300	4 400	8 200	3 000	5 000	2 300	4 000	5 200	19 200
6	19 600	42 200	8 200	8 700	4 300	7 800	3 100	5 300	2 600	3 800	5 900	19 100
7	17 000	54 600	8 200	8 400	4 200	15 100	2 800	4 300	2 240	3 400	11 400	22 800
8	14 600	60 300	8 700	8 200	4 100	15 400	2 240	3 600	2 240	3 300	10 500	19 100
9	12 000	55 400	8 100	8 300	4 000	9 500	2 400	3 100	2 300	3 100	8 700	15 500
10	10 500	34 900	8 100	7 800	4 200	6 800	2 700	2 700	2 070	3 200	8 700	13 700
11	10 500	26 500	8 100	8 700	4 400	5 300	2 600	2 150	2 070	3 100	8 200	12 300
12	10 600	22 100	10 100	8 500	4 400	5 000	2 700	1 980	2 300	2 900	8 000	11 400
13	10 800	18 400	11 700	7 500	4 200	4 800	2 500	1 900	2 300	2 800	11 100	11 100
14	12 300	14 700	10 500	6 900	3 800	4 500	2 500	2 150	2 300	2 800	16 400	11 100
15	13 500	13 400	9 600	6 800	3 500	4 100	2 800	2 300	3 300	2 700	12 400	10 800
16	13 900	13 100	8 900	6 700	3 700	3 400	3 300	2 300	3 400	2 900	9 100	12 800
17	23 800	11 700	8 400	6 200	4 100	3 800	3 400	2 400	3 500	2 900	7 600	20 100
18	19 400	11 200	8 000	5 800	4 000	3 700	3 100	2 300	3 600	3 800	8 400	21 300
19	13 300	10 700	7 600	6 000	4 000	3 900	2 800	2 240	4 000	5 900	8 600	18 000
20	11 700	10 400	7 200	5 800	3 800	3 800	2 500	2 150	5 700	5 100	8 000	18 300
21	9 500	10 500	7 100	5 900	4 200	3 600	2 300	2 070	16 100	4 200	10 800	20 800
22	9 800	12 800	7 100	5 800	8 300	3 300	2 240	2 150	12 800	4 300	25 600	17 100
23	16 600	26 900	7 300	5 600	13 700	3 300	2 070	1 980	7 500	6 400	49 400	16 100
24	39 100	24 200	18 800	5 400	6 700	3 500	1 900	1 900	6 800	9 500	62 100	18 800
25	32 000	17 900	51 000	5 200	4 500	4 100	1 980	1 980	5 700	8 500	68 900	26 300
26	32 000	15 300	56 600	4 900	6 000	3 500	1 900	2 070	5 300	10 600	80 700	25 800
27	53 100	14 500	47 200	4 600	13 000	3 200	2 150	2 150	4 600	6 900	54 300	21 600
28	60 800	13 100	33 900	4 600	19 100	3 000	1 980	2 070	4 200	5 700	27 400	16 000
29	43 500	13 400	25 700	4 600	14 900	2 900	1 900	2 150	4 300	5 200	23 300	14 300
30	32 900		17 600	4 300	8 000	2 700	1 900	2 070	5 000	4 900	19 800	17 500
31	33 900		15 700		6 500		1 500	2 070		4 300		23 500
Average	22 250	24 420	15 140	7 170	6 052	5 597	2 502	2 470	4 204	4 600	19 600	17 790
Lowest	8 000	10 400	7 100	4 300	3 500	2 700	1 500	1 580	1 820	2 700	3 500	10 800
Highest	60 800	60 300	56 600	13 500	19 100	15 400	3 400	5 300	16 100	10 600	80 700	26 300
Peak flow	62 100	62 100	58 500	16 200	19 700	18 300	3 600	6 400	21 200	11 700	84 500	27 600
Day of peak	28	8	26	1	28	7	16	7	21	26	26	25
Monthly total (million cu m)	59.59	61.18	40.56	18.58	16.21	14.51	6.70	6.62	10.90	12.32	50.80	47.64
Runoff (mm)	41	42	28	13	11	10	5	5	7	8	35	33
Rainfall (mm)	82	49	50	8	75	44	15	51	94	60	102	47

Statistics of monthly data for previous record (Jan 1933 to Dec 1983)

Mean flows	Avg	19 190	20 210	17 420	10 910	7 171	4 262	3 098	2 712	2 738	5 152	11 030	15 170
	Low	2 606	2 233	2 409	1 994	1 412	0 484	0 098	0 038	0 270	0 452	1 149	1 532
	(year)	1934	1965	1944	1976	1934	1934	1934	1934	1934	1934	1934	1964
	High	55 190	53 300	62 010	31 460	28 290	11 950	19 080	14 400	18 000	26 420	43 800	40 400
	(year)	1939	1977	1947	1951	1983	1954	1968	1980	1968	1966	1960	1960
Runoff	Avg	35	34	32	19	13	8	6	5	5	9	20	28
	Low	5	4	4	4	3	1	0	0	0	1	2	3
	High	101	88	114	56	52	21	35	26	37	48	78	74
Rainfall (1934-1983)	Avg	57	42	49	45	55	52	53	62	54	59	64	60
	Low	15	3	5	3	10	8	5	3	3	4	10	13
	High	124	111	140	96	113	119	120	138	110	137	178	128

Summary statistics

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	10 930	9 873	111
Lowest yearly mean		2 401	1934
Highest yearly mean		18 890	1937
Lowest monthly mean	2 470	0 038	Aug 1934
Highest monthly mean	24 420	62 010	Mar 1947
Lowest daily mean	1 500	0 008	31 Aug 1934
Highest daily mean	80 700	278 100	15 Mar 1947
Peak	84 500		
10 %ile	24 690	26 250	94
50 %ile	6 778	4 349	156
95 %ile	2 026	0 864	235
Annual total (million cu m)	345.60	311.60	111
Annual runoff (mm)	237	213	111
Annual rainfall (mm)	677	652	104
[1941-70 rainfall average (mm)]		650]	

Factors affecting flow regime

- Reservoir(s) in catchment.
- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from effluent returns.

Station description

Three broad crested weirs, supplemented by three vertically lifting sluice gates for high flows



**034006 Waveney at Needham Mill****1984**Measuring authority: AWA  
First year: 1963Grid reference: TM 229811  
Level stn. (m OD) 16.50Catchment area (sq km): 370.0  
Max alt. (m OD): 65**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0.939	7.387	1.230	2.594	0.563	2.230	0.495	0.330	0.269	0.509	0.584	1.291
2	1.223	8.055	1.437	2.016	0.566	2.706	0.489	0.352	0.265	0.565	0.564	1.307
3	2.976	7.759	1.296	1.543	0.564	1.816	0.483	0.385	0.290	0.564	0.542	1.257
4	2.305	8.038	1.107	1.526	0.568	1.363	0.480	0.361	0.387	0.569	0.518	1.235
5	1.862	10.690	1.127	1.381	0.598	1.239	0.467	0.366	0.401	1.452	0.518	1.266
6	2.054	12.750	1.102	2.653	0.578	1.117	0.473	0.352	0.371	2.172	0.569	4.298
7	2.892	18.560	1.068	3.261	0.565	1.655	0.457	0.448	0.369	1.393	0.635	3.576
8	2.723	11.880	1.013	2.568	0.526	1.360	0.409	0.575	0.347	1.129	0.632	2.066
9	1.866	6.209	0.962	2.144	0.513	1.054	0.462	0.492	0.345	1.114	0.623	0.981
10	1.616	4.396	1.031	2.098	0.544	0.886	0.540	0.415	0.335	0.967	0.616	1.756
11	1.879	3.584	1.139	1.945	0.530	0.803	0.520	0.385	0.332	0.821	0.599	1.572
12	2.035	3.017	1.093	1.647	0.496	0.766	0.483	0.352	0.328	0.718	0.615	1.537
13	2.688	2.732	1.014	1.389	0.465	0.704	0.468	0.344	0.327	0.630	0.640	1.511
14	3.312	2.339	0.994	1.304	0.467	0.664	0.473	0.342	0.381	0.585	0.729	1.427
15	2.376	2.098	0.939	1.291	0.499	0.626	0.555	0.342	0.531	0.562	0.835	0.839
16	2.357	1.989	0.909	1.118	0.475	0.595	0.561	0.342	0.476	0.536	0.347	2.891
17	3.419	1.872	0.857	0.912	0.474	1.112	0.485	0.342	0.434	0.526	0.892	5.213
18	2.387	1.460	0.784	0.893	0.469	2.711	0.446	0.334	0.453	0.529	1.071	3.834
19	1.870	1.521	0.773	0.873	0.456	1.421	0.428	0.298	0.476	0.523	1.217	2.855
20	1.492	1.534	0.774	0.858	0.565	1.060	0.402	0.292	0.981	0.494	1.541	7.332
21	1.267	1.697	0.774	0.815	1.132	1.485	0.391	0.295	1.971	0.466	3.401	7.781
22	1.495	1.467	0.773	0.768	4.746	1.158	0.380	0.312	1.278	0.613	5.396	3.798
23	2.260	1.269	0.741	0.698	2.093	0.998	0.415	0.257	0.989	1.005	7.928	2.891
24	2.716	1.140	2.024	0.639	1.218	0.843	0.419	0.282	1.175	0.863	13.180	2.983
25	1.975	1.126	3.702	0.633	1.078	0.737	0.393	0.274	1.461	1.033	10.190	4.202
26	10.860	1.209	8.179	0.820	1.068	0.664	0.390	0.261	1.109	0.986	4.653	8.864
27	24.820	1.231	5.253	0.574	4.275	0.603	0.387	0.252	0.813	0.746	2.776	4.482
28	24.820	1.238	3.999	0.556	4.465	0.508	0.383	0.262	0.673	0.640	2.279	3.167
29	16.130	1.223	3.760	0.525	3.004	0.512	0.371	0.267	0.591	0.627	1.907	2.509
30	9.230		3.785	0.536	1.725	0.509	0.357	0.283	0.639	0.603	1.645	2.345
31	9.915		3.292		1.345		0.341	0.276		0.589		2.761
Average	4.831	4.464	1.836	1.346	1.182	1.130	0.445	0.337	0.627	0.791	2.254	2.962
Lowest	0.939	1.126	0.741	0.525	0.456	0.508	0.341	0.252	0.265	0.466	0.347	0.839
Highest	24.820	18.560	8.179	3.261	4.746	2.711	0.561	0.575	1.971	2.172	13.180	7.781
Peak flow	27.200	20.200	9.161	3.596	6.094	3.560	0.600	0.800	2.591	2.591	13.660	10.510
Day of peak	27	7	26	6	27	18	15	22	21	6	24	20
Monthly total (million cu m)	12.94	11.19	4.92	3.49	3.17	2.93	1.19	0.90	1.62	2.12	5.84	7.93
Runoff (mm)	35	30	13	9	9	8	3	2	4	6	16	21
Rainfall (mm)	90	39	42	15	66	58	30	27	92	55	69	50

**Statistics of monthly data for previous record (Dec 1963 to Dec 1983)**

Mean flows:	Avg	3.608	3.583	2.643	1.974	1.156	0.612	0.495	0.486	0.917	0.873	1.865	2.906
	Low	0.609	0.722	0.591	0.487	0.369	0.286	0.285	0.282	0.261	0.352	0.397	0.492
	(year)	1973	1965	1973	1974	1974	1974	1974	1973	1964	1964	1964	1964
	High	7.132	10.670	7.666	5.646	3.255	1.019	0.880	1.250	9.754	2.912	8.852	8.380
	(year)	1969	1979	1981	1983	1969	1971	1969	1968	1968	1974	1974	1965
Runoff	Avg.	26	24	19	14	8	4	4	4	6	6	13	21
	Low	4	5	4	3	3	2	2	2	2	3	3	4
	High	52	70	55	40	24	7	6	9	68	21	62	61
Rainfall	Avg	49	39	43	44	46	48	61	48	55	50	65	54
	Low	16	17	10	9	10	10	11	7	2	4	25	18
	High	78	72	96	86	97	104	364	101	161	116	150	100

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	1.842	1.751	105
Lowest yearly mean		0.537	1973
Highest yearly mean		2.730	1969
Lowest monthly mean	0.337	0.261	Sep 1964
Highest monthly mean	4.831	10.670	Feb 1979
Lowest daily mean	0.252	0.189	23 Aug 1973
Highest daily mean	24.820	89.760	16 Sep 1968
Peak	27.200	113.300	16 Sep 1968
10 %ile	3.783	4.143	91
50 %ile	0.945	0.751	126
95 %ile	0.330	0.321	103
Annual total (million cu m)	58.25	55.26	105
Annual runoff (mm)	157	149	105
Annual rainfall (mm)	633	602	105
[1941-70 rainfall average (mm)]		603]	

**Factors affecting flow regime**

- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from surface water and/or groundwater.

**Station description**

Compound Crump weir in main channel plus single crested Crump in mill bypass.

**036006 Stour at Langham****1984**Measuring authority AWA  
First year: 1962Grid reference TM 020344  
Level stn. (m OD) 6.40Catchment area (sq km): 578.0  
Max alt. (m OD): 128**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2 057	11 080	2 332	3 580	1 629	2 001	1 411	0 906	0 810	1 217	1 238	3 264
2	2 643	10 450	2 378	3 273	1 383	1 828	1 276	1 042	0 940	1 190	1 230	2 872
3	8 459	12 210	2 411	2 692	1 605	2 135	1 328	1 077	1 027	1 246	1 375	2 344
4	10 890	13 480	2 377	2 384	1 520	2 269	1 276	1 104	0 970	1 165	1 330	2 463
5	6 886	17 510	2 275	2 287	1 521	2 423	0 998	1 160	0 998	4 719	1 365	2 361
6	6 496	16 360	2 263	2 655	1 725	2 485	1 025	1 319	1 500	4 991	1 418	6 802
7	6 918	23 560	2 202	3 327	1 538	3 978	0 937	1 591	0 851	2 263	1 767	8 013
8	7 176	37 750	2 348	3 173	1 865	3 894	0 920	1 824	1 075	0 787	1 635	4 360
9	4 135	17 600	2 028	2 920	1 551	2 580	1 125	1 874	1 332	1 311	1 574	3 380
10	2 945	8 629	2 056	2 634	1 649	2 094	0 838	1 687	1 287	1 387	1 562	2 785
11	3 092	6 124	2 209	2 780	1 597	1 827	0 987	1 575	1 201	1 395	1 632	2 015
12	3 616	4 976	2 629	2 652	1 617	1 853	1 113	1 212	1 032	1 304	1 347	2 167
13	4 972	4 532	3 161	2 649	1 182	1 731	0 955	1 095	1 031	1 357	1 415	2 341
14	8 007	4 339	2 838	2 386	1 301	1 787	1 152	0 973	1 140	1 344	2 170	2 410
15	4 757	3 621	2 663	2 276	1 471	1 781	1 181	1 303	1 261	1 356	4 441	2 449
16	5 158	3 327	2 390	2 248	2 108	1 807	1 066	0 878	1 248	1 374	2 545	5 101
17	7 648	3 271	2 278	2 104	2 222	2 081	1 016	1 283	1 528	1 282	2 828	10 120
18	4 555	2 483	2 190	1 845	1 830	2 066	1 014	0 863	1 252	1 280	5 861	6 439
19	3 173	3 002	2 028	2 068	1 404	1 863	1 077	1 079	1 239	1 279	3 178	4 771
20	2 904	2 923	2 115	2 051	1 526	2 501	0 948	1 098	2 308	1 273	2 475	5 345
21	1 637	3 053	2 087	1 953	2 236	13 090	1 031	0 880	4 435	1 387	5 542	8 141
22	3 097	3 034	2 126	1 988	4 137	8 422	0 995	0 896	2 499	1 424	9 432	5 342
23	7 119	2 675	2 074	1 939	2 923	2 718	1 230	0 801	1 197	1 857	17 370	4 609
24	14 820	2 337	4 371	1 869	1 786	2 581	0 963	0 837	1 465	1 735	18 440	5 670
25	7 993	2 367	4 387	1 849	1 603	1 176	0 954	0 895	1 333	1 742	19 150	9 138
26	12 200	2 627	11 040	1 799	1 814	1 665	0 964	0 916	1 565	1 654	8 498	11 730
27	23 080	2 456	7 682	1 753	7 697	1 374	0 647	0 702	1 303	1 612	4 587	7 350
28	37 870	2 388	6 679	1 756	6 886	1 487	0 870	0 740	1 138	1 446	3 789	4 504
29	22 630	2 310	6 976	1 720	4 687	1 466	0 894	0 768	1 137	1 187	3 688	3 344
30	12 840		5 764	2 006	2 012	1 347	0 897	0 767	1 297	1 226	3 544	3 303
31	14 580		4 905		1 921		0 847	0 715		1 177		4 232
Average	8 527	7 947	3 396	2 354	2 256	2 675	1 030	1 092	1 380	1 612	4 548	4 812
Lowest	1 632	2 310	2 028	1 720	1 182	1 176	0 647	0 702	0 810	0 787	1 230	2 015
Highest	37 870	37 750	11 040	3 580	7 697	13 090	1 411	1 874	4 435	4 991	19 150	11 730
Peak flow	40 810	41 270	12 770	4 229	12 250	15 780	1 740	2 125	5 970	6 921	22 160	13 210
Day of peak	28	8	26	1	27	21	1	17	21	5	25	26
Monthly total (million cu m)	22 84	19 91	9 10	6 10	6 04	6 93	2 76	2 93	3 58	4 32	11 79	12 89
Runoff (mm)	40	34	16	11	10	12	5	5	6	7	20	22
Rainfall (mm)	85	44	43	12	68	63	20	41	94	61	72	47

**Statistics of monthly data for previous record (Oct 1962 to Dec 1983)**

Mean flows	Avg	5 080	5 053	4 872	3 580	2 536	1 345	0 954	0 919	1 060	1 590	2 719	4 061
	Low	1 398	0 884	1 597	1 218	0 758	0 453	0 190	0 209	0 395	0 509	0 578	0 693
	(year)	1965	1965	1976	1974	1974	1965	1976	1976	1964	1970	1964	1964
	High	9 053	12 980	9 776	9 335	7 253	2 810	1 655	2 080	4 955	6 237	11 340	10 550
	(year)	1971	1979	1981	1983	1983	1983	1980	1968	1968	1982	1974	1965
Runoff	Avg	24	21	23	16	12	6	4	4	5	7	12	19
	Low	6	4	7	5	4	2	1	1	2	2	3	3
	High	42	54	45	42	34	13	8	10	22	29	51	49
Rainfall	Avg	46	35	46	46	48	44	50	52	48	61	52	
	Low	15	16	12	11	12	10	8	11	1	3	20	13
	High	70	63	93	99	100	100	87	105	118	128	155	107

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre 1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	3 453	2 804	123
Lowest yearly mean		1 428	1973
Highest yearly mean		4 077	1979
Lowest monthly mean	1 030	0 190	Jul 1976
Highest monthly mean	8 527	12 980	Feb 1979
Lowest daily mean	0 647	0 094	9 Jul 1976
Highest daily mean	37 870	42 940	31 Dec 1981
Peak	41 270	43 850	31 Dec 1981
10 %ile	7 599	6 198	123
50 %ile	2 033	1 548	131
95 %ile	0 893	0 496	180
Annual total (million cu m)	109 20	88 48	123
Annual runoff (mm)	189	153	123
Annual rainfall (mm)	650	576	113
[1941-70 rainfall average (mm)]		601]	

**Factors affecting flow regime**

- Flow reduced by industrial and/or agricultural abstractions
- Augmentation from surface water and/or groundwater
- Augmentation from effluent returns.

**Station description**

Twin-throated trapezoidal critical depth flume. Flow augmented as part of Ely-Ouse transfer scheme.

**038003 Mimram at Panshanger Park****1984**Measuring authority: TWA  
First year: 1952Grid reference: TL 282133  
Level stn. (m OD) 47.10Catchment area (sq km): 133.9  
Max alt. (m OD): 193**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0.538	0.611	0.571	0.592	0.505	0.607	0.408	0.355	0.337	0.395	0.410	0.579
2	0.649	0.592	0.573	0.552	0.493	0.598	0.396	0.351	0.332	0.425	0.429	0.596
3	0.535	0.604	0.548	0.561	0.491	0.585	0.398	0.337	0.386	0.447	0.426	0.597
4	0.489	0.667	0.543	0.546	0.499	0.510	0.402	0.671	0.356	0.395	0.414	0.575
5	0.516	0.602	0.554	0.553	0.481	0.513	0.390	0.439	0.374	0.564	0.548	0.667
6	0.494	0.604	0.548	0.565	0.497	0.624	0.396	0.407	0.357	0.411	0.505	0.633
7	0.489	0.700	0.546	0.546	0.472	0.575	0.387	0.502	0.336	0.406	0.461	0.590
8	0.479	0.637	0.542	0.544	0.482	0.508	0.379	0.413	0.335	0.415	0.497	0.601
9	0.469	0.575	0.542	0.561	0.504	0.482	0.376	0.381	0.426	0.407	0.466	0.583
10	0.476	0.582	0.544	0.550	0.495	0.469	0.373	0.380	0.376	0.405	0.448	0.582
11	0.519	0.573	0.559	0.599	0.492	0.460	0.361	0.371	0.339	0.401	0.460	0.578
12	0.525	0.588	0.558	0.543	0.475	0.455	0.368	0.369	0.334	0.393	0.494	0.580
13	0.523	0.569	0.555	0.533	0.483	0.451	0.366	0.370	0.338	0.390	0.518	0.612
14	0.573	0.570	0.529	0.533	0.451	0.444	0.500	0.376	0.881	0.387	0.486	0.614
15	0.487	0.569	0.527	0.533	0.476	0.438	0.409	0.442	0.425	0.387	0.463	0.632
16	0.726	0.573	0.526	0.534	0.472	0.433	0.391	0.380	0.379	0.392	0.558	0.757
17	0.533	0.572	0.520	0.537	0.505	0.518	0.384	0.372	0.551	0.392	0.522	0.641
18	0.510	0.567	0.517	0.537	0.464	0.462	0.374	0.367	0.393	0.432	0.490	0.622
19	0.503	0.569	0.536	0.517	0.471	0.441	0.373	0.362	0.417	0.452	0.478	0.634
20	0.496	0.643	0.536	0.518	0.557	0.628	0.391	0.364	0.823	0.397	0.568	0.667
21	0.493	0.612	0.550	0.517	0.635	0.453	0.380	0.348	0.584	0.416	0.628	0.616
22	0.587	0.651	0.552	0.512	0.769	0.491	0.375	0.343	0.425	0.500	0.765	0.630
23	0.817	0.605	0.691	0.506	0.531	0.510	0.374	0.350	0.574	0.441	0.935	0.632
24	0.584	0.590	0.896	0.521	0.487	0.452	0.366	0.415	0.512	0.653	0.677	0.658
25	0.589	0.589	0.773	0.500	0.544	0.442	0.363	0.361	0.430	0.506	0.614	0.699
26	0.657	0.599	0.668	0.496	0.824	0.424	0.365	0.351	0.410	0.448	0.584	0.644
27	0.603	0.598	0.632	0.490	0.705	0.417	0.360	0.362	0.403	0.434	0.597	0.627
28	0.583	0.581	0.637	0.482	0.594	0.417	0.341	0.380	0.415	0.468	0.617	0.622
29	0.582	0.566	0.604	0.473	0.546	0.417	0.341	0.363	0.415	0.425	0.596	0.667
30	0.687		0.600	0.477	0.502	0.416	0.345	0.341	0.415	0.417	0.586	0.666
31	0.604		0.594		0.488		0.329	0.334		0.413		0.647
Average	0.558	0.598	0.583	0.531	0.529	0.488	0.379	0.388	0.438	0.433	0.541	0.627
Lowest	0.469	0.566	0.517	0.473	0.451	0.416	0.329	0.334	0.332	0.387	0.410	0.575
Highest	0.817	0.700	0.896	0.599	0.824	0.628	0.500	0.671	0.881	0.653	0.935	0.757
Peak flow	1.270	0.924	1.690	0.960	1.560	1.310	0.738	1.240	1.440	0.949	1.470	1.170
Day of peak	23	7	24	3	21	20	14	4	14	24	23	16
Monthly total (million cu m)	1.50	1.50	1.56	1.38	1.42	1.27	1.02	1.03	1.13	1.16	1.40	1.88
Runoff (mm)	11	11	12	10	11	9	8	8	8	9	10	13
Rainfall (mm)	82	40	44	11	82	69	16	43	102	62	98	46

**Statistics of monthly data for previous record (Dec 1952 to Dec 1983)**

Mean flows	Avg	0.579	0.643	0.673	0.863	0.822	0.564	0.492	0.453	0.425	0.414	0.449	0.505
Low (year)	Low	0.245	0.289	0.258	0.260	0.216	0.186	0.163	0.145	0.195	0.175	0.176	0.189
High (year)	High	1.102	1.167	1.173	1.050	1.084	0.971	0.803	0.764	0.617	0.638	0.739	1.005
Runoff	Avg	12	12	13	13	12	11	10	9	8	8	9	10
Low	Low	5	5	5	5	4	4	3	3	4	4	3	4
High	High	22	21	22	20	22	19	16	15	12	13	14	20
Rainfall	Avg	54	43	49	46	51	58	54	58	56	59	62	63
Low	Low	17	3	3	5	15	5	5	7	5	5	20	13
High	High	102	96	116	105	115	122	123	127	121	142	151	119

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	0.507	0.540	94
Lowest yearly mean		0.231	1973
Highest yearly mean		0.767	1961
Lowest monthly mean	0.379	0.145	Aug 1976
Highest monthly mean	0.627	1.167	Feb 1961
Lowest daily mean	0.329	0.135	21 Aug 1976
Highest daily mean	0.935	1.795	30 May 1979
Peak	1.690	3.541	30 May 1979
10 %ile	0.634	0.798	79
50 %ile	0.504	0.514	98
95 %ile	0.353	0.231	153
Annual total (million cu m)	18.03	17.03	94
Annual runoff (mm)	120	127	94
Annual rainfall (mm)	695	653	106
(1941-70 rainfall average (mm)		645)	

**Factors affecting flow regime**

- Flow influenced by groundwater abstraction and/or recharge.
- Flow reduced by industrial and/or agricultural abstractions.

**Station description**

Trapezoidal critical depth flume measures up to 11.3 cu m/s



**039001 Thames at Kingston/Teddington****1984**Measuring authority: TWA  
First year: 1883Grid reference: TQ 177698  
Level stn. (m OD) 5.00Catchment area (sq km): 9948.0  
Max alt. (m OD): 330**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	44 100	177 000	69 900	91 800	17 900	31 100	7 740	9 110	8 880	9 250	14 500	111 000
2	61 800	179 000	69 300	99 300	20 700	53 800	10 500	9 890	9 590	9 720	15 900	94 700
3	162 000	162 000	66 300	72 300	25 200	37 600	8 570	9 160	9 700	12 300	33 700	103 000
4	148 000	137 000	56 100	67 700	19 200	45 900	9 380	13 900	8 130	11 100	27 900	112 000
5	128 000	136 000	55 000	70 700	15 600	34 800	8 670	11 500	9 550	35 600	24 600	106 000
6	80 800	144 000	52 800	68 000	19 200	42 600	9 070	7 000	7 970	25 200	28 900	157 000
7	80 800	163 000	57 000	61 400	20 100	43 400	7 480	9 280	12 400	5 860	34 200	144 000
8	76 900	167 000	52 900	58 200	19 900	40 900	9 470	10 100	10 700	5 790	46 200	101 000
9	61 800	148 000	49 600	56 000	12 900	28 200	10 500	7 770	9 950	7 200	33 100	89 100
10	61 500	127 000	46 300	57 800	15 400	24 000	8 800	9 120	9 560	12 000	45 800	80 200
11	62 500	109 000	49 100	59 200	22 300	23 300	8 950	6 700	6 940	7 740	43 300	71 900
12	72 200	107 000	80 900	57 500	20 400	19 300	9 970	7 750	7 440	6 270	32 700	67 900
13	97 300	87 300	69 300	52 900	17 900	19 100	9 600	9 540	7 010	8 570	48 500	69 900
14	117 000	88 400	60 000	49 900	15 500	13 900	10 800	7 560	13 400	7 120	71 100	82 200
15	94 100	85 000	52 600	49 900	14 600	12 600	11 200	15 900	11 300	9 270	56 300	88 100
16	113 000	82 200	51 600	48 300	10 300	10 300	8 000	10 000	7 130	8 940	49 400	129 000
17	200 000	71 100	36 400	37 600	13 100	18 400	9 000	8 360	11 800	9 590	69 100	161 000
18	147 000	72 300	39 900	24 000	19 800	24 300	14 300	7 570	10 300	9 140	52 200	124 000
19	106 000	70 900	44 000	28 400	22 800	15 600	9 890	9 180	6 440	13 400	47 000	112 000
20	83 400	67 100	42 400	28 100	23 700	13 500	9 270	9 520	34 100	12 200	40 400	126 000
21	66 200	83 200	43 600	25 700	26 800	12 400	8 220	7 880	27 300	6 670	55 600	119 000
22	82 100	120 000	45 700	34 800	75 500	14 200	9 730	9 300	20 200	8 190	135 000	101 000
23	142 000	148 000	44 100	36 500	75 300	13 400	9 500	8 630	13 400	21 200	238 000	103 000
24	210 000	107 000	169 000	36 500	48 400	18 200	9 240	10 700	8 330	27 100	248 000	126 000
25	167 000	95 500	269 000	31 800	24 300	16 200	9 260	11 400	6 480	69 900	189 000	130 000
26	204 000	76 100	262 000	30 000	80 800	11 100	7 480	9 400	7 850	22 900	175 000	152 000
27	233 000	82 300	200 000	19 400	133 000	9 750	6 950	9 020	6 700	28 900	176 000	124 000
28	210 000	76 100	186 000	17 900	92 500	10 500	7 340	8 060	7 670	11 500	166 000	119 000
29	200 000	69 100	168 000	18 200	61 900	9 080	8 790	8 510	13 600	5 020	125 000	101 000
30	191 000		109 000	20 600	55 600	7 270	7 720	6 460	11 200	7 250	124 000	91 800
31	187 000		116 000		48 800		10 200	9 850		12 200		123 000
Average	125 500	111 600	87 540	47 010	35 140	22 420	9 213	9 294	11 170	14 420	81 480	110 300
Lowest	44 100	67 100	36 400	17 900	10 300	7 270	6 950	6 460	6 440	5 020	14 500	87 900
Highest	233 000	179 000	269 000	99 300	133 000	53 800	14 300	15 900	34 100	69 900	248 000	161 000

Peak flow  
Day of peak  
Monthly total  
(million cu m)

Runoff (mm)	34	28	24	12	9	6	2	3	3	4	21	30
Rainfall (mm)	109	42	62	5	80	73	18	42	89			

**Statistics of monthly data for previous record (Jan 1883 to Dec 1883)**

Mean flows:	Avg	127 100	124 300	105 900	75 070	54 270	37 340	23 820	22 230	23 910	38 890	72 920	102 100
Low	18 570	12 290	9 426	8 975	4 391	3 302	2 080	1 912	0 888	3 157	7 484	10 210	
(year)	1976	1976	1976	1976	1976	1976	1921	1976	1976	1934	1921	1933	
High	325 300	342 000	359 500	188 800	171 700	171 600	72 280	79 330	123 900	179 800	334 000	333 900	
(year)	1915	1904	1947	1916	1932	1903	1968	1931	1927	1903	1894	1929	
Runoff	Avg	34	30	29	20	15	10	6	6	6	11	19	27
	Low	7	4	4	5	2	2	1	1	1	1	2	3
	High	88	86	97	49	46	45	19	21	32	48	87	90
Rainfall	Avg	64	49	52	48	54	52	59	64	58	72	72	72
	Low	18	3	3	3	8	3	8	3	3	5	8	13
	High	137	127	142	104	137	137	130	147	157	188	188	185

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	55 280	67 060	82
Lowest yearly mean		20 410	1934
Highest yearly mean		120 000	1951
Lowest monthly mean	9 213	0 688	Sep 1976
Highest monthly mean	125 500	359 500	Mar 1947
Lowest daily mean	5 020	0 010	11 Oct 1976
Highest daily mean	269 000	1059 000	18 Nov 1894
Peak			
10 %ile	140 100	183 000	86
50 %ile	34 090	42 170	81
95 %ile	7 261	9 196	79
Annual total (million cu m)	1748 00	2116 00	83
Annual runoff (mm)	176	213	83
Annual rainfall (mm)		716	
[1941-70 rainfall average (mm)]		723]	

**Factors affecting flow regime**

- Reservoir(s) in catchment.
- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from surface water and/or groundwater.
- Augmentation from effluent returns.

**Station description**

Ultrasonic gauging station installed at Kingston in 1975. Earlier data derived from the Teddington gauging station - a low flow gauging weir with adjustable crest 21.3 m broad, two roller sluices each 10.7 m broad, 35 vertically lifting gates total breadth, 68.2 m, and 34 radial gates each 3.07 m broad. Naturalised flows are determined by taking account of abstractions for public water supply.

**039007 Blackwater at Swallowfield****1984**Measuring authority: TWA  
First year: 1952Grid reference: SU 731648  
Level stn. (m OD) 42.28Catchment area (sq km): 354.8  
Max alt. (m OD): 225**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2 770	5 980	3 100	6 500	2 080	3 900	1 510	1 440	1 270	1 960	2 120	4 130
2	7 460	5 340	3 200	5 150	2 880	3 300	1 540	1 470	1 240	1 880	3 280	4 120
3	8 060	4 470	2 910	4 540	2 650	3 190	1 490	1 490	1 280	2 630	3 410	4 780
4	4 330	4 310	2 870	4 070	2 250	2 790	1 440	4 620	1 420	2 160	2 570	4 570
5	4 220	4 330	2 860	3 660	2 150	2 900	1 450	2 340	1 320	2 750	2 470	5 580
6	3 730	5 130	2 810	3 540	2 110	2 540	1 520	1 830	1 250	2 390	3 020	9 090
7	3 610	4 370	2 780	3 200	2 000	3 390	1 450	1 820	1 250	1 920	2 570	5 440
8	3 140	4 190	2 700	3 190	1 970	2 580	1 440	1 730	1 270	1 860	2 810	4 390
9	2 920	3 510	2 720	3 160	1 960	2 350	1 440	1 600	1 240	1 890	2 920	4 000
10	2 940	3 300	2 750	3 020	2 650	2 230	1 380	1 530	1 230	2 950	2 700	3 590
11	3 410	3 280	3 410	3 020	2 550	2 230	1 410	1 430	1 230	2 230	2 490	3 270
12	3 410	3 180	5 130	2 890	2 340	2 110	1 450	1 360	1 220	1 930	3 020	3 210
13	4 750	3 130	3 440	2 790	2 120	2 070	1 810	1 510	1 230	1 800	4 670	3 930
14	5 070	2 950	3 220	2 740	2 070	1 950	1 760	2 080	2 400	1 710	3 270	4 210
15	3 720	2 900	2 980	2 700	2 230	1 900	1 540	1 990	1 900	1 700	2 860	3 830
16	11 600	2 810	2 830	2 760	2 290	1 880	1 420	1 690	1 450	1 710	3 740	10 200
17	7 530	2 770	2 710	2 650	2 520	2 640	1 430	1 590	2 100	1 670	4 230	7 380
18	4 790	2 800	2 650	2 540	2 170	2 200	1 380	1 440	3 540	2 050	3 260	5 550
19	4 130	2 800	2 680	2 410	2 130	1 990	1 410	1 430	1 830	2 920	2 960	7 590
20	3 620	3 580	2 580	2 350	2 330	1 880	1 410	1 330	5 140	2 470	3 190	7 230
21	3 440	5 300	2 560	2 290	2 530	1 800	1 400	1 320	6 270	1 990	4 530	5 380
22	5 510	7 110	2 510	2 260	9 070	1 820	1 380	1 320	2 890	2 670	13 700	5 200
23	9 870	5 120	3 980	2 240	4 150	1 770	3 050	1 380	2 230	2 820	15 500	5 350
24	7 270	4 280	19 200	2 210	3 120	1 900	2 580	1 360	2 060	7 420	9 410	6 150
25	6 440	3 830	12 400	2 210	3 340	1 760	2 260	1 310	1 850	6 800	6 420	5 560
26	14 000	3 590	8 610	2 120	11 000	1 630	1 920	1 270	1 740	3 480	4 920	5 070
27	8 620	3 410	7 420	2 130	13 300	1 610	1 620	1 290	1 690	2 840	4 230	4 190
28	6 410	3 210	10 300	2 110	6 850	1 570	1 590	1 290	2 250	2 700	4 440	3 760
29	5 610	3 190	8 120	2 110	4 810	1 570	1 390	1 270	2 760	2 550	4 560	3 810
30	5 840		7 660	2 130	3 850	1 590	1 410	1 240	2 210	2 350	4 150	4 870
31	5 550		7 110		3 340		1 470	1 260		2 200		4 500
Average	5 605	3 937	4 845	2 956	3 575	2 235	1 605	1 614	2 025	2 594	4 447	5 159
Lowest	2 770	2 770	2 510	2 110	1 960	1 570	1 380	1 240	1 220	1 670	2 120	3 210
Highest	14 000	7 110	19 200	6 500	13 300	3 900	3 050	4 620	6 270	7 420	15 500	10 200
Peak flow	18 100	8 190	23 100	7 310	16 300	4 550	6 840	6 510	8 680	14 900	17 500	14 000
Day of peak	16	22	24	1	27	1	23	4	21	24	23	16
Monthly total (million cu m)	15 01	9 86	12 98	7 66	9 57	5 79	4 30	4 32	5 25	6 95	11 53	13 82
Runoff (mm)	42	28	37	22	27	16	12	12	15	20	32	39
Rainfall (mm)	111	39	82	3	102	28	30	44	83	83	100	76

**Statistics of monthly data for previous record (Oct 1952 to Dec 1983)**

Mean flows	Avg	4 607	4 093	3 820	3 036	2 526	1 987	1 448	1 485	1 820	2 515	3 352	4 017
Low	1 758	1 687	1 323	1 521	1 081	0 767	0 711	0 723	0 638	0 907	1 262	1 298	1 298
(year)	1954	1965	1953	1976	1956	1953	1953	1953	1959	1959	1964	1953	1953
High	8 000	7 292	6 898	5 600	5 946	6 472	2 316	2 622	6 609	7 613	8 019	7 022	7 022
(year)	1975	1966	1979	1966	1978	1971	1968	1977	1968	1960	1960	1960	1960
Runoff	Avg	35	28	29	22	19	15	11	11	13	19	24	30
Low	13	12	10	11	8	6	5	5	5	7	9	10	10
High	60	50	52	41	45	47	17	20	48	57	59	53	53
Rainfall	Avg	65	45	53	46	55	52	55	59	68	70	73	73
Low	15	5	3	8	8	5	18	17	3	6	18	18	18
High	124	108	125	106	128	144	104	117	167	208	179	167	167

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	3 385	2 887	117
Lowest yearly mean		1 466	1953
Highest yearly mean		3 777	1982
Lowest monthly mean	1 605	0 638	Sep 1959
Highest monthly mean	5 605	8 019	Nov 1960
Lowest daily mean	1 220	0 464	18 Aug 1953
Highest daily mean	19 200	39 200	16 Sep 1968
Peak	23 100	41 000	16 Sep 1968
10 %ile	6 075	5 504	110
50 %ile	2 745	2 099	131
95 %ile	1 319	0 857	154
Annual total (million cu m)	107 00	91 11	117
Annual runoff (mm)	302	257	117
Annual rainfall (mm)	781	714	109
[1941-70 rainfall average (mm)]		708]	

**Factors affecting flow regime**

- Augmentation from effluent returns.

**Station description**

Critical depth flume and side weir 9 m broad. 1970 onwards 2 Crump weirs, main 4.57 m broad, side 2.7 m broad

039020 Coln at Bibury

1984

Measuring authority: TWA  
First year 1963

Grid reference: SP 122062  
Level stn. (m OD) 100.65

Catchment area (sq km): 106.7  
Max alt. (m OD): 330

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1 220	2 670	1 840	1 270	0 886	0 754	0 577	0 529	0 436	0 446	0 610	2 960
2	1 390	2 680	1 810	1 220	0 872	0 785	0 579	0 550	0 440	0 458	0 634	2 830
3	1 590	2 680	1 760	1 200	0 866	0 764	0 577	0 557	0 437	0 441	0 652	2 790
4	1 520	2 720	1 750	1 200	0 858	0 754	0 570	0 580	0 452	0 435	0 655	2 730
5	1 580	2 740	1 700	1 190	0 841	0 747	0 555	0 562	0 453	0 428	0 660	2 670
6	1 640	2 810	1 660	1 190	0 835	0 745	0 564	0 553	0 452	0 426	0 678	2 620
7	1 670	2 780	1 580	1 170	0 833	0 716	0 560	0 533	0 447	0 423	0 688	2 560
8	1 690	2 710	1 540	1 170	0 830	0 703	0 566	0 529	0 451	0 416	0 720	2 520
9	1 690	2 680	1 510	1 160	0 823	0 688	0 582	0 522	0 457	0 427	0 787	2 440
10	1 700	2 690	1 480	1 130	0 816	0 678	0 583	0 514	0 452	0 429	0 818	2 420
11	1 690	2 690	1 460	1 110	0 805	0 679	0 580	0 505	0 448	0 428	0 829	2 380
12	1 670	2 630	1 440	1 090	0 791	0 642	0 592	0 502	0 439	0 441	0 954	2 360
13	1 670	2 590	1 400	1 080	0 784	0 639	0 581	0 508	0 448	0 430	1 020	2 330
14	1 650	2 540	1 350	1 070	0 814	0 639	0 595	0 499	0 477	0 429	1 090	2 280
15	1 590	2 470	1 330	1 050	0 813	0 634	0 584	0 493	0 457	0 437	1 200	2 240
16	1 810	2 420	1 320	1 040	0 809	0 634	0 569	0 489	0 437	0 427	1 260	2 220
17	1 830	2 370	1 300	1 020	0 822	0 630	0 569	0 489	0 452	0 422	1 360	2 200
18	1 800	2 330	1 260	1 010	0 798	0 624	0 572	0 482	0 442	0 440	1 370	2 170
19	1 850	2 270	1 280	1 010	0 771	0 620	0 566	0 476	0 469	0 442	1 370	2 130
20	1 870	2 240	1 270	0 989	0 776	0 616	0 561	0 470	0 527	0 433	1 410	2 080
21	1 900	2 240	1 250	0 985	0 774	0 623	0 552	0 485	0 508	0 433	1 470	2 040
22	1 950	2 230	1 230	1 000	0 820	0 616	0 545	0 485	0 487	0 451	1 630	2 040
23	2 140	2 150	1 250	0 982	0 784	0 611	0 537	0 489	0 477	0 473	1 940	2 030
24	2 070	2 070	1 480	0 971	0 746	0 615	0 534	0 498	0 458	0 496	2 280	2 060
25	2 030	2 010	1 430	0 957	0 737	0 622	0 544	0 476	0 463	0 515	2 580	2 090
26	2 180	1 970	1 480	0 957	0 740	0 603	0 524	0 472	0 457	0 524	2 940	2 110
27	2 270	1 930	1 390	0 937	0 729	0 589	0 517	0 469	0 450	0 541	3 190	2 230
28	2 280	1 910	1 320	0 930	0 750	0 590	0 507	0 453	0 451	0 563	3 200	2 220
29	2 380	1 860	1 270	0 924	0 739	0 589	0 503	0 459	0 445	0 561	3 140	2 310
30	2 580		1 280	0 903	0 721	0 580	0 507	0 450	0 439	0 582	3 070	2 460
31	2 610		1 290		0 717		0 514	0 449		0 601		2 490
Average	1 855	2 417	1 442	1 064	0 797	0 658	0 557	0 501	0 457	0 464	1 474	2 355
Lowest	1 220	1 860	1 230	0 903	0 717	0 580	0 503	0 449	0 436	0 416	0 610	2 030
Highest	2 610	2 810	1 840	1 270	0 886	0 785	0 595	0 580	0 527	0 601	3 200	2 960
Peak flow	2 730	2 910	1 900	1 310	0 945	0 849	0 631	0 614	0 574	0 636	3 610	3 070
Day of peak	30	6	1	1	4	2	14	3	19	31	27	1
Monthly total (million cu m)	4 97	6 06	3 86	2 76	2 13	1 70	1 49	1 34	1 18	1 24	3 82	6 31
Runoff (mm)	47	57	36	26	20	16	14	13	11	12	36	59
Rainfall (mm)	99	44	49	5	76	32	15	59	110	82	142	70

Statistics of monthly data for previous record (Oct 1963 to Dec 1983)

Mean flows	Avg	2 024	2 310	2 224	1 766	1 353	1 150	0 856	0 878	0 588	0 657	0 987	1 539
	Low	0 374	0 380	0 383	0 371	0 334	0 290	0 243	0 207	0 202	0 259	0 344	0 375
	(year)	1976	1976	1976	1976	1976	1976	1976	1976	1976	1976	1973	1975
	High	3 196	3 616	3 385	3 415	2 599	2 290	1 372	1 032	0 908	1 299	2 714	3 016
	(year)	1982	1977	1977	1979	1983	1979	1977	1968	1968	1968	1967	1965
Runoff	Avg	51	53	56	43	34	28	21	17	14	16	24	39
	Low	9	9	10	9	8	7	6	5	5	7	8	9
	High	80	82	85	83	65	56	34	26	22	33	66	76
Rainfall	Avg	73	60	69	52	70	59	59	67	73	61	73	87
	Low	18	8	19	5	23	9	15	23	17	8	34	25
	High	126	159	143	109	161	155	120	149	149	171	163	159

Summary statistics

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	1 166	1 339	87
Lowest yearly mean		0 400	1976
Highest yearly mean		1 771	1966
Lowest monthly mean	0 457	0 202	Sep 1976
Highest monthly mean	2 417	3 616	Feb 1977
Lowest daily mean	0 416	0 190	23 Aug 1978
Highest daily mean	3 200	4 870	22 Dec 1965
Peak	3 610	5 000	22 Dec 1965
10 %ile	2 375	2 626	90
50 %ile	0 818	1 081	76
95 %ile	0 438	0 380	115
Annual total (million cu m)	36 87	42 25	87
Annual runoff (mm)	346	396	87
Annual rainfall (mm)	783	803	98
[1941-70 rainfall average (mm)]		823]	

Station description  
Crump weir 9.1 m broad

Factors affecting flow regime

● Flow influenced by groundwater abstraction and/or recharge



**040005 Beult at Stile Bridge****1984**Measuring authority: SWA  
First year: 1958Grid reference: TQ 758478  
Level stn. (m OD) 11.49Catchment area (sq km): 277.1  
Max alt. (m OD): 160**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0.455	7.862	0.778	7.528	0.259	0.424	0.128	0.088	0.057	0.096	0.214	1.102
2	1.972	7.633	0.816	4.504	0.200	0.611	0.124	0.071	0.076	0.155	0.200	0.827
3	10.390	4.743	0.677	2.606	0.174	0.512	0.112	0.075	0.078	0.484	0.187	0.860
4	3.606	4.375	0.547	1.830	0.153	0.385	0.109	0.088	0.070	0.838	0.179	1.920
5	1.668	4.983	0.518	1.322	0.253	0.491	0.106	0.102	0.066	1.858	0.164	2.285
6	1.446	3.781	0.471	1.153	0.279	0.488	0.104	0.096	0.064	1.222	0.204	12.040
7	1.599	2.791	0.457	1.071	0.257	0.490	0.105	0.089	0.065	0.428	0.273	5.977
8	1.474	2.021	0.441	0.926	0.246	0.483	0.102	0.092	0.068	0.312	0.343	2.566
9	0.921	1.315	0.417	0.852	0.253	0.370	0.172	0.093	0.068	0.261	0.286	1.641
10	0.744	1.037	0.438	0.807	0.268	0.315	0.243	0.093	0.071	0.275	0.291	1.245
11	1.381	0.972	0.466	0.744	0.177	0.283	0.176	0.092	0.058	0.267	0.287	1.136
12	3.845	0.896	0.518	0.410	0.239	0.264	0.149	0.092	0.059	0.221	0.263	1.064
13	11.000	0.816	0.462	0.584	0.248	0.259	0.137	0.093	0.058	0.185	0.256	1.051
14	7.805	0.724	0.427	0.563	0.250	0.247	0.135	0.106	0.078	0.167	0.911	1.061
15	3.588	0.677	0.407	0.532	0.263	0.225	0.144	0.104	0.092	0.181	1.120	7.307
16	11.570	0.652	0.384	0.481	0.254	0.205	0.158	0.099	0.092	0.196	0.922	23.560
17	9.434	0.625	0.369	0.422	0.249	0.220	0.148	0.101	0.091	0.138	3.232	27.920
18	3.192	0.570	0.356	0.354	0.254	0.238	0.136	0.100	0.115	0.192	1.895	9.332
19	2.136	0.555	0.345	0.328	0.341	0.208	0.123	0.180	0.113	0.233	1.770	10.980
20	1.673	0.582	0.344	0.367	0.193	0.185	0.109	0.101	0.113	0.157	1.650	10.420
21	1.349	0.841	0.342	0.366	0.397	0.170	0.107	0.049	0.151	0.144	4.792	7.617
22	8.416	1.360	0.335	0.367	2.751	0.161	0.105	0.045	0.156	0.626	15.040	4.442
23	26.920	1.932	0.377	0.337	1.331	0.157	0.149	0.046	0.149	0.979	24.480	6.091
24	21.620	1.248	10.220	0.297	0.668	0.185	0.258	0.048	0.155	0.802	25.900	8.495
25	8.640	1.038	10.270	0.284	0.477	0.164	0.337	0.049	0.147	2.247	7.633	6.226
26	20.750	0.938	11.330	0.294	0.466	0.142	0.263	0.052	0.128	1.042	3.552	7.638
27	18.820	0.858	8.883	0.297	0.782	0.133	0.229	0.054	0.105	0.471	2.041	4.075
28	16.610	0.845	17.200	0.296	0.688	0.129	0.162	0.057	0.103	0.331	1.566	2.545
29	9.561	0.816	19.560	0.300	0.552	0.128	0.125	0.057	0.112	0.289	1.673	1.891
30	10.370		9.284	0.279	0.430	0.127	0.108	0.057	0.109	0.263	1.504	2.152
31	10.800		8.214		0.349		0.105	0.057		0.236		2.770
Average	7.540	1.982	3.408	1.017	0.442	0.280	0.151	0.081	0.096	0.493	3.428	5.750
Lowest	0.455	0.555	0.335	0.279	0.153	0.127	0.102	0.045	0.057	0.096	0.164	0.827
Highest	26.920	7.862	19.560	7.528	2.751	0.611	0.337	0.180	0.156	2.247	25.900	27.920
Peak flow	35.950	9.245	26.600	7.825	3.978	0.686	0.358	0.567	0.163	0.099	30.250	34.430
Day of peak	23	1	29	1	22	2	25	19	21	1	24	17
Monthly total (million cu m)	20.20	4.97	9.13	2.64	1.18	0.73	0.40	0.22	0.25	1.32	8.88	15.40
Runoff (mm)	73	18	33	10	4	3	1	1	1	5	32	56
Rainfall (mm)	124	28	68	6	57	28	55	17	47	108	91	80

**Statistics of monthly data for previous record (Oct 1958 to Dec 1983—incomplete or missing months total 0.3 years)**

Mean flows	Avg	4 666	3 637	3 008	1 691	1 193	0 584	0 250	0 314	0 587	1 940	3 382	4 135
	Low	0 733	0 707	0 333	0 180	0 114	0 045	0 028	0 005	0 032	0 081	0 133	0 401
	(year)	1976	1959	1976	1976	1976	1959	1969	1969	1969	1978	1971	
	High	8 972	9 241	8 175	5 850	4 002	3 727	1 678	1 607	3 504	9 812	14 390	8 762
	(year)	1975	1966	1975	1983	1983	1964	1980	1966	1974	1960	1960	1959
Runoff	Avg	45	32	29	16	12	5	2	3	5	19	31	40
	Low	7	6	3	2	1	0	0	0	0	1	1	4
	High	87	81	79	55	39	35	16	18	33	95	135	85
Rainfall:	Avg	62	44	53	47	50	49	49	51	66	71	80	75
	Low	13	1	0	10	13	5	12	16	3	5	14	24
	High	120	103	116	106	103	119	107	119	141	185	183	157

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	2.065	2.108	98
Lowest yearly mean		1.120	1962
Highest yearly mean		3.938	1960
Lowest monthly mean	0.081	0.005	Aug 1976
Highest monthly mean	7.540	14.390	Nov 1960
Lowest daily mean	0.045	0.002	20 Aug 1976
Highest daily mean	27.920	61.450	3 Nov 1960
Peak	35.950	80.990	4 Nov 1960
10 %ile	7.580	5.864	129
50 %ile	0.382	0.526	69
95 %ile	0.067	0.070	97
Annual total (million cu m)	65.30	66.52	98
Annual runoff (mm)	236	240	98
Annual rainfall (mm)	709	697	102
{1941-70 rainfall average (mm)		681}	

**Factors affecting flow regime**

- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from effluent returns.

**Station description**

Broad crested weir with low flow notch, and alternative velocity-area station for high flows 45 m upstream

**041016 Cuckmere at Cowbeech****1984**Measuring authority: SWA  
First year 1967Grid reference: TQ 611150  
Level stn (m OD) 29.78Catchment area (sq km): 18.7  
Max alt. (m OD): 183**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0.269	0.905	0.180	0.567	0.076	0.121	0.032	0.026	0.023	0.064	0.075	0.179
2	1.539	0.591	0.173	0.289	0.074	0.228	0.032	0.031	0.023	0.070	0.068	0.167
3	0.814	0.680	0.150	0.230	0.073	0.175	0.031	0.028	0.024	0.208	0.062	0.522
4	0.350	0.609	0.146	0.225	0.072	0.101	0.031	0.028	0.027	0.099	0.057	0.543
5	0.447	0.579	0.146	0.211	0.067	0.098	0.030	0.029	0.020	0.141	0.058	1.188
6	0.394	0.556	0.145	0.203	0.062	0.074	0.030	0.039	0.017	0.052	0.099	1.077
7	0.413	0.434	0.135	0.185	0.058	0.066	0.028	0.067	0.016	0.038	0.108	0.418
8	0.290	0.391	0.128	0.171	0.059	0.060	0.028	0.033	0.022	0.037	0.117	0.308
9	0.230	0.297	0.123	0.165	0.059	0.056	0.067	0.027	0.019	0.042	0.104	0.262
10	0.238	0.278	0.125	0.160	0.063	0.052	0.036	0.027	0.022	0.118	0.103	0.233
11	0.685	0.260	0.126	0.149	0.062	0.051	0.033	0.024	0.022	0.067	0.095	0.219
12	0.862	0.241	0.126	0.138	0.059	0.053	0.106	0.024	0.023	0.044	0.104	0.202
13	1.200	0.222	0.118	0.137	0.058	0.051	0.100	0.026	0.023	0.037	0.145	0.232
14	1.187	0.208	0.113	0.134	0.055	0.049	0.065	0.026	0.039	0.033	0.403	0.346
15	0.548	0.200	0.112	0.133	0.055	0.046	0.048	0.027	0.039	0.032	0.179	1.015
16	1.913	0.193	0.108	0.120	0.057	0.044	0.043	0.025	0.031	0.037	0.313	3.537
17	0.747	0.184	0.104	0.110	0.053	0.042	0.041	0.026	0.046	0.037	0.512	0.819
18	0.405	0.174	0.101	0.108	0.054	0.071	0.042	0.025	0.028	0.043	0.265	1.244
19	0.351	0.172	0.100	0.108	0.053	0.044	0.042	0.025	0.021	0.063	0.191	1.266
20	0.291	0.188	0.101	0.104	0.059	0.041	0.041	0.023	0.043	0.049	0.434	1.648
21	0.273	0.210	0.100	0.102	0.086	0.038	0.041	0.020	0.042	0.043	1.120	0.590
22	0.572	0.667	0.097	0.098	0.249	0.040	0.039	0.023	0.038	0.649	2.424	0.501
23	2.292	0.377	0.167	0.094	0.097	0.036	0.038	0.023	0.034	0.207	3.151	0.864
24	0.408	0.260	0.659	0.092	0.069	0.037	0.040	0.025	0.036	0.411	0.751	0.767
25	1.023	0.229	0.429	0.089	0.088	0.035	0.061	0.023	0.040	0.294	0.431	0.790
26	1.295	0.221	0.405	0.088	0.115	0.034	0.033	0.022	0.043	0.126	0.267	0.625
27	1.910	0.209	0.834	0.084	0.111	0.034	0.031	0.022	0.047	0.088	0.227	0.448
28	0.713	0.206	1.650	0.082	0.089	0.034	0.027	0.022	0.051	0.083	0.214	0.328
29	0.836	0.188	0.674	0.080	0.089	0.034	0.025	0.022	0.056	0.126	0.202	0.292
30	1.582		0.437	0.078	0.060	0.033	0.027	0.024	0.060	0.098	0.190	0.436
31	0.804		0.420		0.054		0.027	0.023		0.084		0.476
Average	0.803	0.342	0.272	0.151	0.075	0.063	0.042	0.027	0.032	0.113	0.416	0.695
Lowest	0.230	0.172	0.097	0.078	0.053	0.033	0.025	0.020	0.016	0.032	0.057	0.167
Highest	2.292	0.905	1.650	0.567	0.249	0.228	0.106	0.067	0.060	0.649	3.151	3.537
Peak flow	7.541	1.475	3.145	0.882	0.412	0.421	0.716	0.114	0.062	1.269	10.590	10.260
Day of peak	23	1	28	1	22	2	12	6	14	22	23	16
Monthly total (million cu m)	2.15	0.86	0.73	0.39	0.20	0.16	0.11	0.07	0.08	0.30	1.08	1.86
Runoff (mm)	115	46	39	21	11	9	6	4	5	16	58	100
Rainfall (mm)	168	47	76	3	57	42	49	34	68	130	124	135

**Statistics of monthly data for previous record (Jun 1967 to Dec 1983—incomplete or missing months total 0.2 years)**

Mean flows	Avg	0.400	0.353	0.267	0.151	0.111	0.072	0.047	0.034	0.066	0.165	0.303	0.296
	Low	0.087	0.068	0.053	0.027	0.018	0.009	0.013	0.009	0.013	0.014	0.013	0.031
	(year)	1973	1981	1973	1976	1976	1976	1976	1976	1978	1978	1973	1971
	High	0.785	0.755	0.574	0.363	0.286	0.393	0.322	0.154	0.394	0.500	0.854	0.665
	(year)	1975	1974	1981	1983	1983	1971	1980	1980	1974	1982	1974	1982
Runoff	Avg	57	46	38	21	16	10	7	5	9	24	42	42
	Low	13	9	8	4	3	1	2	1	2	2	2	4
	High	112	98	82	50	41	54	46	22	55	72	118	95
Rainfall	Avg	88	63	63	51	58	59	62	75	82	93	107	91
(1939-1983)	Low	15	1	1	7	17	6	8	1	5	5	11	21
	High	183	181	194	109	144	155	131	194	222	244	238	229

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	0.253	0.188	135
Lowest yearly mean		0.050	1973
Highest yearly mean		0.278	1974
Lowest monthly mean	0.027	Aug	0.009
Highest monthly mean	0.803	Jan	0.854
Lowest daily mean	0.016	7 Sep	0.003
Highest daily mean	3.537	16 Dec	8.487
Peak	10.590	23 Nov	18.120
10 %ile	0.668		0.431
50 %ile	0.099		0.076
95 %ile	0.023		0.012
Annual total (million cu m)	8.00		5.93
Annual runoff (mm)	428		317
Annual rainfall (mm)	933		892
[1941-70 rainfall average (mm)]		821]	

**Factors affecting flow regime**

- Flow influenced by groundwater abstraction and/or recharge
- Abstraction for public water supplies

**Station description**

Compound Crump weir, crest breadths 2.13 m and 2.97 m. Structure operational from 1967. Limited low flow records, from April 1939, are available from the measuring authority

**042010 Itchen at Highbridge + Allbrook****1984**Measuring authority: SWA  
First year: 1958Grid reference: SU 467213  
Level stn. (m OD) 17.15Catchment area (sq km): 360.0  
Max alt. (m OD): 208

Daily mean gauged discharges (cubic metres per second)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4 795	7 792	7 295	7 188	5 658	5 360	3 973	3 573	3 090	3 188	3 836	5 293
2	5 522	7 616	7 229	7 026	5 677	5 422	3 818	3 827	2 971	3 272	4 061	5 405
3	6 044	7 518	7 155	7 052	5 884	5 285	3 911	3 846	3 130	3 621	4 239	6 060
4	5 351	7 555	7 126	6 978	5 848	5 202	3 858	4 541	3 225	3 419	4 132	5 870
5	5 363	7 589	7 073	6 900	5 689	5 376	3 720	4 319	3 195	3 404	3 909	5 921
6	5 292	7 749	7 033	6 919	5 672	5 206	3 643	3 919	3 161	3 358	3 955	6 312
7	5 269	7 727	6 948	6 968	5 536	5 283	3 590	3 893	3 135	3 307	3 825	5 908
8	5 277	7 640	6 980	6 900	5 426	5 087	3 581	3 869	3 148	3 320	4 181	5 762
9	5 039	7 544	6 956	6 883	5 406	4 818	3 841	3 739	3 242	3 435	4 212	5 794
10	5 103	7 561	6 780	6 952	5 492	4 796	3 828	3 623	3 209	3 619	4 208	5 755
11	5 332	7 435	7 010	6 930	5 648	4 721	3 770	3 555	3 183	3 563	4 067	5 767
12	5 534	7 404	7 422	6 937	5 546	4 812	4 204	3 512	3 171	3 490	4 034	5 787
13	5 817	7 607	7 028	6 809	5 372	4 669	4 194	3 572	3 183	3 396	4 306	5 815
14	5 839	7 402	6 883	6 816	5 373	4 647	4 115	3 595	3 283	3 364	4 288	6 009
15	5 683	7 483	6 740	6 833	5 594	4 474	4 008	3 532	3 344	3 346	4 177	6 018
16	6 763	7 498	6 624	6 614	5 780	4 447	3 848	3 454	3 292	3 409	4 224	6 717
17	6 594	7 457	6 694	6 539	5 416	4 570	3 767	3 391	3 565	3 562	4 216	6 674
18	6 089	7 443	6 588	6 484	5 286	4 384	3 721	3 345	3 667	3 844	4 210	6 416
19	5 843	7 418	6 486	6 461	5 189	4 315	3 627	3 195	3 473	4 103	4 200	6 403
20	5 818	7 615	6 425	6 440	5 207	4 333	3 586	3 017	4 026	4 010	4 332	6 509
21	5 856	8 044	6 409	6 328	5 186	4 302	3 547	2 935	4 428	3 654	4 731	6 297
22	6 185	8 013	6 350	6 295	6 382	4 360	3 445	3 202	3 941	4 034	6 301	6 330
23	7 238	7 785	6 999	6 215	5 626	4 259	3 399	3 250	3 648	3 971	7 082	6 490
24	6 844	7 556	9 303	6 076	5 180	4 256	3 407	3 299	3 415	4 713	6 391	6 556
25	6 850	7 469	8 428	6 031	5 515	4 191	4 101	3 263	3 361	5 029	5 856	6 696
26	7 720	7 421	7 583	5 910	6 609	4 100	4 023	3 204	3 271	4 459	5 435	7 113
27	7 189	7 364	7 764	5 834	6 517	4 102	3 824	3 207	3 259	4 095	5 291	7 846
28	6 992	7 357	7 809	5 751	6 026	4 165	3 477	3 082	3 242	4 016	5 296	7 201
29	7 013	7 289	7 467	5 725	5 508	4 175	3 453	2 983	3 219	3 943	5 359	7 045
30	7 531	7 330	5 681	5 389	4 048	3 371	3 121	3 358	3 922	5 289	7 261	7 199
31	7 808	7 170	5 294	5 294	5 294	3 554	3 091	3 091	3 947	3 947	7 199	7 199
Average	6 116	7 564	7 132	6 549	5 611	4 637	3 747	3 481	3 361	3 736	4 655	6 330
Lowest	4 795	7 289	6 350	5 681	5 180	4 048	3 371	2 935	2 971	3 188	3 825	5 293
Highest	7 808	8 044	9 303	7 188	6 609	5 422	4 204	4 541	4 428	5 029	7 082	7 846

Peak flow

Day of peak

Monthly total

(million cu m) 16 38 18 95 19 10 16 98 15 03 12 02 10 04 9 32 8 71 10 01 12 07 16 95

Runoff (mm)

Rainfall (mm) 46 53 53 47 42 33 28 26 24 28 34 47

Statistics of monthly data for previous record (Oct 1958 to Dec 1983)

Mean flows	Avg	6 558	7 167	7 050	6 535	5 762	4 901	4 192	3 871	3 748	4 201	4 924	5 764
	Low	4 211	4 162	3 644	3 203	3 093	2 582	2 474	2 331	2 669	2 702	2 840	3 136
	(year)	1976	1964	1976	1976	1976	1976	1976	1976	1973	1959	1973	1973
	High	10 520	10 850	9 923	8 521	7 312	6 550	5 219	5 245	5 128	7 867	9 857	10 860
	(year)	1969	1969	1977	1969	1966	1979	1979	1979	1968	1960	1960	1960
Runoff	Avg	49	49	52	47	43	35	31	29	27	31	35	43
	Low	31	29	27	23	23	19	18	17	19	20	20	23
	High	78	73	74	61	54	47	39	39	37	59	71	81
Rainfall	Avg	86	59	85	47	72	64	56	54	93	76	83	84
(1971-1983)	Low	39	19	24	16	19	10	22	18	21	30	31	25
	High	159	137	172	97	131	113	87	89	195	177	197	138

Summary statistics

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	5 235	5 380	97
Lowest yearly mean		3 708	1973
Highest yearly mean		6 594	1960
Lowest monthly mean	3 361	2 331	Aug 1976
Highest monthly mean	7 564	10 860	Dec 1960
Lowest daily mean	2 935	2 167	24 Aug 1976
Highest daily mean	9 303	12 800	29 Jan 1969
Peak			
10 %ile	7 398	7 804	95
50 %ile	5 296	4 933	107
95 %ile	3 201	3 065	104
Annual total (million cu m)	165.50	169.80	97
Annual runoff (mm)	460	472	97
Annual rainfall (mm)		859	
[1941-70 rainfall average (mm)]		876]	

Factors affecting flow regime

- Flow influenced by groundwater abstraction and/or recharge
- Abstraction for public water supplies.
- Augmentation from surface water and/or groundwater

Station description

Velocity-area station until 1971 when simple Crump weir, 7.75 m crest installed. Complementary rectangular thin plate weir at Allbrook, on former Itchen Navigation Canal



**043005 Avon at Amesbury****1984**Measuring authority WWA  
First year 1965Grid reference: SU 151413  
Level stn. (m OD) 67.06Catchment area (sq km) 323.7  
Max alt. (m OD) 294**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2 533	8 556	5 442	4 666	3 120	2 843	1 759	1 215	1 054	1 247	1 284	2 728
2	2 747	8 643	5 318	4 442	3 012	2 957	1 822	1 256	1 043	1 235	1 362	2 700
3	4 204	7 871	5 089	4 470	3 007	3 009	1 690	1 260	1 049	1 218	1 457	2 697
4	3 492	7 560	5 039	4 302	3 031	2 824	1 796	1 277	1 087	1 222	1 469	2 776
5	3 269	7 563	4 984	4 281	2 960	2 772	1 659	1 287	1 057	1 227	1 404	2 810
6	3 144	7 879	4 966	4 318	2 931	2 768	1 612	1 277	1 025	1 182	1 476	3 086
7	3 104	7 885	4 942	4 293	2 876	2 771	1 589	1 280	1 025	1 163	1 516	3 053
8	2 997	7 439	4 919	4 229	2 839	2 684	1 563	1 237	1 031	1 161	1 599	2 906
9	2 952	7 277	4 900	4 224	2 811	2 560	1 569	1 238	1 052	1 175	1 936	2 818
10	2 954	7 156	4 875	4 209	2 803	2 392	1 519	1 178	1 021	1 200	2 088	2 754
11	3 026	7 099	4 855	4 209	2 791	2 329	1 494	1 211	1 042	1 212	1 841	2 708
12	3 061	6 983	4 836	4 133	2 745	2 292	1 588	1 158	1 014	1 219	1 788	2 696
13	3 666	6 835	4 789	4 088	2 727	2 265	1 658	1 156	1 005	1 181	2 388	2 721
14	3 973	6 691	4 743	4 064	2 685	2 231	1 584	1 162	1 035	1 175	2 290	2 953
15	3 795	6 609	4 696	4 045	2 731	2 195	1 531	1 281	1 138	1 156	1 995	2 994
16	4 649	6 551	4 811	3 964	2 935	2 187	1 489	1 227	1 071	1 164	1 799	3 709
17	7 038	6 469	4 844	3 779	3 132	2 165	1 411	1 191	1 205	1 172	1 737	4 260
18	5 071	6 323	4 830	3 841	3 064	2 169	1 402	1 149	1 390	1 244	1 676	3 755
19	4 753	6 244	4 866	3 811	2 885	2 175	1 361	1 122	1 354	1 296	1 618	3 838
20	4 578	6 427	4 857	3 781	2 817	2 150	1 369	1 100	1 544	1 426	1 701	4 394
21	4 410	6 909	4 854	3 588	2 820	2 081	1 338	1 055	2 044	1 456	2 243	4 061
22	4 739	6 920	4 757	3 504	3 271	1 991	1 326	1 065	1 732	1 506	3 324	3 926
23	5 602	6 702	5 075	3 442	3 599	2 078	1 286	1 094	1 535	1 463	4 013	4 134
24	6 525	6 297	7 726	3 414	3 049	2 003	1 316	1 140	1 404	1 642	3 932	4 191
25	5 917	6 119	6 915	3 382	2 938	2 015	1 365	1 170	1 277	2 008	3 273	4 236
26	8 765	6 031	6 639	3 304	3 160	1 952	1 328	1 156	1 257	1 928	2 901	4 619
27	10 700	5 832	6 055	3 239	3 381	1 844	1 283	1 148	1 259	1 584	2 766	6 388
28	9 308	5 726	5 194	3 217	3 208	1 805	1 259	1 082	1 240	1 475	2 735	5 835
29	8 130	5 561	4 841	3 179	2 945	1 791	1 248	1 083	1 218	1 455	2 732	5 491
30	8 179		4 722	3 121	2 812	1 761	1 227	1 066	1 231	1 339	2 737	6 594
31	8 828		4 697		2 724		1 188	1 078		1 304		6 607
Average	5 036	6 902	5 164	3 885	2 962	2 302	1 472	1 174	1 215	1 337	2 169	3 821
Lowest	2 533	5 561	4 696	3 121	2 685	1 761	1 188	1 055	1 005	1 156	1 284	2 696
Highest	10 700	8 643	7 726	4 666	3 599	3 009	1 822	1 287	2 044	2 008	4 013	6 607
Peak flow	11 480	9 079	8 447	4 710	3 898	3 063	2 175	1 488	2 204	2 133	4 897	7 325
Day of peak	27	2	24	1	23	3	4	10	20	25	23	31
Monthly total (million cu m)	13.49	17.29	13.83	10.07	7.93	5.97	3.94	3.15	3.15	3.58	5.62	10.23
Runoff (mm)	42	53	43	31	25	18	12	10	10	11	17	32
Rainfall (mm)	134	38	58	1	90	26	21	35	95	71	125	99

**Statistics of monthly data for previous record (Feb 1965 to Dec 1983)**

Mean flows	Avg	5 254	5 845	5 653	4 553	3 505	2 706	2 042	1 719	1 619	1 953	2 852	3 974
	Low	1 199	1 187	1 158	1 039	0 834	0 626	0 475	0 372	0 644	1 149	1 090	1 385
	(year)	1976	1976	1976	1976	1976	1976	1976	1976	1976	1970	1973	1975
	High	8 555	9 686	8 352	7 587	5 146	4 260	3 021	2 362	2 528	3 521	6 440	7 260
	(year)	1982	1977	1972	1979	1979	1979	1971	1979	1974	1966	1974	1982
Runoff	Avg	43	44	47	36	29	22	17	14	13	16	21	33
	Low	10	9	10	8	7	5	4	3	5	10	9	11
	High	71	72	69	61	43	34	25	20	20	29	52	60
Rainfall	Avg	76	56	69	47	61	58	50	62	72	67	74	86
	Low	18	6	14	8	24	3	15	22	11	4	31	26
	High	134	134	150	100	121	143	113	152	179	161	185	160

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	3 107	3 444	90
Lowest yearly mean		1 431	1976
Highest yearly mean		4 476	1977
Lowest monthly mean	1 174	0 372	Aug 1976
Highest monthly mean	6 902	9 686	Feb 1977
Lowest daily mean	1 005	0 175	22 Aug 1976
Highest daily mean	10 700	15 540	25 Feb 1977
Peak	11 480	17 330	16 Mar 1982
10 %ile	6 265	6 622	95
50 %ile	2 756	2 844	97
95 %ile	1 083	1 150	94
Annual total (million cu m)	98.25	108.70	90
Annual runoff (mm)	304	336	90
Annual rainfall (mm)	793	778	102
[1941-70 rainfall average (mm)]		764	

**Factors affecting flow regime**

● Natural to within 10% at 95 percentile flow.

**Station description**

Crump weir 9.14 m broad with a broad crested weir on both sides

**045001 Exe at Thorverton****1984**Measuring authority: SWWA  
First year: 1956Grid reference: SS 936016  
Level stn. (m OD) 25.85Catchment area (sq km): 600.9  
Max alt. (m OD): 519**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	22 680	53 280	12 500	11 110	3 172	3 184	1 674	1 394	1 341	9 352	20 620	46 200
2	59 350	46 720	11 800	9 635	3 089	3 583	1 734	1 521	1 337	8 485	26 700	40 350
3	65 370	54 890	10 050	9 292	3 188	5 333	1 627	3 481	1 310	8 157	22 840	41 170
4	48 440	53 810	9 274	10 340	3 207	3 848	1 611	4 646	2 269	7 237	20 130	34 250
5	40 630	65 420	8 620	9 246	3 083	4 053	1 601	2 492	2 305	6 155	17 650	31 610
6	34 360	135 900	8 045	8 566	2 963	4 095	1 555	1 931	1 704	5 393	15 720	26 330
7	30 910	110 000	7 562	8 066	2 893	3 540	1 473	1 859	1 542	5 388	15 900	22 300
8	25 720	65 980	7 101	7 684	2 775	3 323	1 394	1 694	1 550	6 354	39 340	19 470
9	22 040	44 980	6 689	7 364	2 724	3 054	1 613	1 561	1 759	10 100	36 250	17 120
10	21 820	35 530	6 490	7 057	2 686	2 903	1 707	1 465	2 012	10 090	32 270	14 990
11	24 780	29 560	6 347	6 883	2 543	2 809	1 628	1 466	1 976	8 822	28 480	13 480
12	44 870	24 040	6 334	6 451	2 449	2 764	2 765	1 458	1 951	8 469	37 630	12 290
13	118 500	19 900	5 882	6 046	2 364	2 784	2 965	1 430	1 829	7 894	31 000	12 400
14	81 060	16 940	5 816	5 831	2 404	2 783	2 538	1 397	4 458	7 187	33 160	15 350
15	56 610	14 840	5 315	5 616	2 541	2 729	2 355	1 357	3 292	6 618	30 050	13 340
16	110 300	13 270	5 062	5 280	2 661	2 501	2 066	1 331	2 656	6 018	29 170	30 260
17	78 490	11 900	4 921	5 017	2 850	2 424	1 945	1 325	2 612	6 037	23 590	30 180
18	53 800	10 790	4 779	4 854	2 836	2 352	1 816	1 298	2 530	12 740	20 250	28 440
19	41 590	10 480	4 688	4 642	2 521	2 252	1 692	1 240	2 296	14 330	16 920	39 300
20	33 240	17 600	4 537	4 469	2 417	2 260	1 683	1 256	10 160	15 690	24 250	39 990
21	32 390	25 110	4 348	4 334	2 451	2 201	1 663	1 346	10 250	23 270	47 740	34 090
22	39 970	37 130	4 273	4 236	5 813	2 165	1 592	1 532	8 246	78 000	95 770	34 410
23	64 510	31 350	11 940	4 055	5 356	2 355	1 439	1 526	8 062	61 340	96 220	31 630
24	62 990	27 470	10 250	3 890	3 528	2 077	1 544	1 344	7 016	51 380	86 190	34 230
25	71 620	23 530	9 449	3 729	3 122	2 074	1 709	1 260	6 538	47 230	64 400	36 330
26	103 000	20 530	8 311	3 578	4 290	1 959	1 544	1 270	8 713	38 950	45 920	34 130
27	133 300	17 840	8 834	3 447	4 615	1 879	1 488	1 242	7 282	31 280	37 550	30 100
28	80 550	15 550	8 216	3 359	3 918	1 834	1 305	1 289	8 028	26 480	33 280	25 680
29	60 250	13 830	7 504	3 314	3 511	1 790	1 317	1 197	9 067	21 620	30 170	25 490
30	59 990		7 092	3 235	3 160	1 796	1 376	1 265	11 560	26 510	28 650	23 800
31	49 870		10 260		3 088		1 433	1 464		23 000		21 010
Average	57 190	36 140	7 487	8 021	3 168	2 757	1 721	1 623	4 522	19 340	36 260	27 730
Lowest	21 820	10 480	4 273	3 235	2 384	1 790	1 305	1 197	1 310	5 388	15 720	12 290
Highest	133 300	135 900	12 500	11 110	5 813	5 333	2 965	4 646	11 560	78 000	96 220	46 200
Peak flow	198 800	162 400	22 810	15 560	11 440	6 596	3 328	10 320	25 380	91 640	110 200	52 250
Day of peak	27	7	27	1	23	3	13	4	20	23	23	1
Monthly total (million cu m)	153.20	90.56	20.05	15.61	8.49	7.15	4.61	4.35	11.72	51.80	93.99	74.28
Runoff (mm)	255	151	33	26	14	12	8	7	20	86	156	124
Rainfall (mm)	297	131	62	8	66	35	41	73	140	164	215	117

**Statistics of monthly data for previous record (May 1956 to Dec 1983)**

Mean flows	Avg	28 510	25 930	19 400	12 600	9 221	5 675	4 644	6 213	9 406	16 600	21 900	30 800
Low	5 438	6 451	6 376	4 340	2 593	1 989	1 153	0 696	1 699	1 561	5 297	12 460	
(year)	1963	1965	1962	1974	1976	1975	1976	1976	1972	1978	1978	1978	1963
High	42 750	47 220	49 630	28 800	29 380	15 870	19 770	17 140	35 830	59 830	44 000	68 440	
(year)	1961	1957	1981	1966	1983	1958	1968	1958	1974	1960	1970	1965	
Runoff	Avg	127	105	86	54	41	24	21	28	41	74	94	137
	Low	24	28	28	19	12	9	5	3	7	7	23	56
	High	191	190	221	124	131	68	88	76	155	267	190	305
Rainfall	Avg	141	103	103	73	80	72	81	96	114	121	129	155
	Low	30	8	18	7	25	9	19	31	13	13	48	51
	High	246	196	222	163	175	160	174	157	254	300	239	321

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	16 940	15 870	107
Lowest yearly mean		9 698	1964
Highest yearly mean		22 600	1960
Lowest monthly mean	1 623	0 696	Aug 1976
Highest monthly mean	57 190	68 440	Dec 1965
Lowest daily mean	1 197	0 440	28 Aug 1976
Highest daily mean	135 900	282 200	4 Dec 1960
Peak	198 800	492 600	4 Dec 1960
10 %ile	45 810	37 510	122
50 %ile	6 745	9 809	69
95 %ile	1 360	1 898	72
Annual total (million cu m)	535.70	500.80	107
Annual runoff (mm)	891	833	107
Annual rainfall (mm)	1349	1268	106
[1941-70 rainfall average (mm)]		1326]	

**Factors affecting flow regime**

- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from effluent returns.

**Station description**

Velocity-area station Modified in 1973 by the construction of a low level bed control

**047001 Tamar at Gunnislake****1984**Measuring authority: SWWA  
First year: 1956Grid reference: SX 426725  
Level stn. (m OD) 8.21Catchment area (sq km) 916.9  
Max alt. (m OD) 586**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	23 080	75 720	13 820	18 310	3 983	3 161	1 346	1 167	1 216	12 250	30 700	112 300
2	63 650	62 990	13 080	13 700	3 892	3 139	1 303	1 846	1 173	9 714	57 270	101 700
3	60 670	86 720	11 950	12 630	4 622	3 957	1 268	2 294	1 199	10 950	59 700	82 880
4	41 270	60 060	10 780	12 520	4 416	3 695	1 219	3 795	1 386	10 120	38 790	61 970
5	41 080	70 360	10 050	11 540	4 113	2 992	1 167	2 111	1 476	7 751	31 110	57 420
6	38 260	99 530	9 507	10 650	3 836	2 771	1 126	1 676	1 365	6 429	25 870	43 050
7	41 230	82 580	9 047	9 915	3 611	2 615	1 103	1 487	1 251	5 622	22 780	36 070
8	30 820	54 250	8 523	9 232	3 401	2 537	1 076	1 364	1 209	5 646	42 410	30 770
9	26 320	40 160	8 103	8 881	3 315	2 387	1 214	1 303	1 307	7 958	38 140	26 960
10	25 730	33 000	7 938	8 464	3 247	2 263	1 354	1 253	1 483	10 660	33 760	23 260
11	33 180	28 410	8 060	8 200	3 098	2 174	1 536	1 250	1 437	8 536	31 980	20 860
12	56 080	24 510	11 140	7 942	2 977	2 131	2 288	1 224	1 380	7 241	105 200	19 100
13	115 900	21 270	9 270	7 399	2 889	2 127	2 185	1 197	1 340	6 614	70 100	19 430
14	71 060	18 810	8 099	7 153	2 863	2 122	2 053	1 178	1 974	5 975	100 200	30 600
15	64 940	17 010	7 581	7 023	3 055	2 125	2 174	1 148	2 063	5 480	61 020	24 130
16	161 600	15 760	7 181	6 630	3 536	2 042	1 689	1 100	1 573	5 124	49 800	76 590
17	92 210	14 530	6 786	6 187	3 877	1 956	1 448	1 065	1 390	5 310	38 130	56 920
18	61 940	13 350	6 524	5 992	3 577	1 834	1 381	1 031	1 384	22 470	32 800	49 160
19	53 390	12 870	6 341	5 804	3 071	1 769	1 325	0 982	1 323	24 790	27 260	70 130
20	38 750	25 100	6 145	5 586	2 931	1 735	1 266	0 923	1 720	26 040	35 490	48 590
21	38 170	40 200	6 058	5 458	2 816	1 669	1 222	1 148	5 952	24 940	78 420	37 710
22	48 050	49 730	5 968	5 276	9 055	1 613	1 186	2 536	4 082	79 570	170 400	51 810
23	90 270	30 970	46 690	5 015	7 811	1 665	1 140	2 313	3 951	55 370	137 400	54 680
24	68 300	25 160	33 450	4 784	4 406	1 645	1 225	1 819	3 110	84 110	96 900	68 060
25	78 060	22 050	25 620	4 609	3 718	1 580	1 237	1 552	2 560	62 990	72 650	51 990
26	141 600	19 780	20 660	4 465	3 892	1 519	1 164	1 758	5 159	41 970	51 430	55 500
27	161 300	17 710	21 520	4 402	3 830	1 468	1 080	1 696	6 326	32 800	45 210	40 460
28	78 710	16 030	16 950	4 250	3 300	1 421	1 024	1 325	24 410	28 640	46 170	33 220
29	64 740	14 760	14 640	4 132	3 070	1 384	0 988	1 225	14 220	24 630	45 680	37 240
30	73 360	13 650	4 059	2 893	1 373	1 373	1 007	1 248	14 290	49 010	53 050	42 430
31	58 520	16 110		2 862			1 083	1 272		38 060		33 990
Average	65 880	37 700	12 940	7 674	3 805	2 182	1 351	1 525	3 757	22 800	57 660	48 350
Lowest	23 080	12 870	5 968	4 059	2 816	1 373	0 988	0 923	1 173	5 124	22 780	19 100
Highest	161 600	99 530	46 690	18 310	9 055	3 957	2 288	3 795	24 410	79 570	170 400	112 300
Peak flow	263 800	129 000	104 700	24 180	19 860	4 274	2 482	5 125	31 260	87 410	207 700	137 300
Day of peak	27	7	24	1	22	4	12	4	29	23	23	2
Monthly total (million cu m)	176.40	94.47	34.67	19.89	10.19	5.61	3.62	4.09	9.74	61.06	149.50	129.50
Runoff (mm)	192	103	38	22	11	6	4	4	11	67	163	141
Rainfall (mm)	247	95	69	7	64	19	50	79	158	152	221	138

**Statistics of monthly data for previous record (Jul 1956 to Dec 1983)—incomplete or missing months total 3.4 years)**

Mean flows	Avg	48 180	38 200	27 490	15 730	10 990	6 665	5 377	7 988	13 080	21 390	34 470	45 720
	Low	8 476	9 161	11 250	6 420	3 488	1 995	1 181	0 757	1 118	1 540	4 213	18 350
	(year)	1964	1965	1961	1974	1976	1976	1976	1976	1959	1978	1978	1963
	High	89 410	84 270	65 520	31 500	32 370	20 630	21 900	42 100	58 840	65 080	78 760	91 690
	(year)	1974	1974	1981	1960	1983	1972	1965	1958	1974	1981	1959	1959
Runoff	Avg	135	102	80	44	32	19	16	23	37	62	97	134
	Low	25	24	33	18	10	6	3	2	3	5	12	54
	High	261	222	191	89	95	58	64	123	169	190	223	268
Rainfall	Avg	143	100	99	67	75	71	83	91	108	119	135	145
	Low	23	3	14	8	25	11	13	18	10	12	58	41
	High	301	206	219	151	149	167	160	179	251	258	274	266

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	22 100	22 710	97
Lowest yearly mean		12 520	1964
Highest yearly mean		34 890	1974
Lowest monthly mean	1 351	0 757	Aug 1976
Highest monthly mean	65 880	91 690	Dec 1959
Lowest daily mean	0 923	0 580	23 Aug 1976
Highest daily mean	170 400	482 300	27 Dec 1979
Peak	263 800	714 600	28 Dec 1979
10 %ile	62 460	55 810	112
50 %ile	7 662	12 080	63
95 %ile	1 171	1 765	66
Annual total (million cu m)	698 90	716 70	98
Annual runoff (mm)	762	782	98
Annual rainfall (mm)	1299	1236	105
(1941-70 rainfall average (mm)		1230]	

**Factors affecting flow regime**

- Reservoir(s) in catchment
- Flow influenced by groundwater abstraction and/or recharge
- Abstraction for public water supplies
- Flow reduced by industrial and/or agricultural abstractions
- Augmentation from surface water and/or groundwater
- Augmentation from effluent returns

**Station description**

Velocity-area station. Because of the presence of large boulders, low flows are measured at a ford about 1.6 km upstream

**050001 Taw at Umberleigh****1984**Measuring authority: SWWA  
First year: 1958Grid reference: SS 608237  
Level stn. (m OD): 14.14Catchment area (sq km): 826.2  
Max alt. (m OD): 604**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	22 760	53 960	12 060	17 370	2 271	1 899	0 750	0 640	0 653	10 350	23 930	84 230
2	78 830	48 860	11 240	11 060	2 203	1 715	0 703	0 844	0 580	8 775	35 030	69 890
3	79 040	72 400	9 794	9 734	2 780	2 150	0 668	1 053	0 625	8 570	33 710	55 020
4	53 380	62 630	8 878	10 830	2 489	2 104	0 644	2 519	0 984	8 227	27 970	41 430
5	42 740	67 470	8 121	9 263	2 379	2 375	0 623	1 420	0 931	6 606	23 100	35 940
6	35 440	113 600	7 528	7 984	2 175	2 236	0 595	0 923	0 801	5 324	19 550	29 800
7	33 740	92 370	6 968	7 152	2 006	1 839	0 570	0 807	0 677	4 952	18 020	24 090
8	27 270	57 250	6 437	6 552	1 894	1 687	0 568	0 733	0 673	5 127	47 910	20 920
9	23 380	40 310	5 950	6 170	1 827	1 551	0 558	0 728	0 881	8 374	44 280	19 190
10	22 210	30 990	5 692	5 822	1 781	1 425	0 595	0 697	1 040	10 920	36 680	16 230
11	25 400	25 160	5 612	5 696	1 711	1 358	1 082	0 647	1 025	9 189	30 520	14 580
12	53 450	20 500	5 550	5 535	1 619	1 316	1 499	0 628	1 087	8 418	81 510	13 370
13	125 800	17 030	5 085	4 844	1 557	1 318	1 751	0 623	1 052	7 608	53 470	15 300
14	82 990	14 530	4 808	4 645	1 538	1 301	1 569	0 615	2 681	6 692	57 370	26 230
15	60 960	12 790	4 542	4 566	1 637	1 280	1 270	0 591	1 778	5 917	47 990	22 510
16	128 400	11 560	4 350	4 247	1 886	1 206	1 015	0 558	1 386	5 351	55 700	61 520
17	81 280	10 500	4 130	3 963	2 752	1 161	0 897	0 542	1 340	5 246	37 220	50 970
18	56 060	9 408	3 957	3 808	2 211	1 085	0 849	0 517	1 170	13 020	30 130	42 240
19	44 340	9 393	3 832	3 632	1 764	1 021	0 799	0 477	1 044	16 170	25 300	52 190
20	32 240	19 030	3 680	3 441	1 848	0 988	0 725	0 453	5 147	17 280	42 810	44 740
21	30 710	39 240	3 566	3 333	1 863	0 925	0 691	0 570	8 035	19 770	74 190	35 720
22	46 880	62 550	3 543	3 222	5 470	0 977	0 671	1 590	5 895	73 930	133 100	40 050
23	78 250	41 510	12 320	3 039	5 102	1 073	0 635	1 063	5 227	59 750	120 500	39 330
24	77 440	31 900	14 770	2 873	2 793	0 957	0 608	0 845	6 273	58 570	105 800	52 600
25	83 250	25 410	10 580	2 745	2 183	0 896	0 667	0 828	6 061	57 340	76 500	48 350
26	136 100	21 140	9 212	2 605	2 177	0 862	0 722	0 721	8 665	46 990	53 400	44 430
27	127 100	17 500	10 460	2 491	2 484	0 827	0 636	0 659	6 771	36 650	42 570	34 770
28	70 750	15 230	8 530	2 417	2 184	0 789	0 579	0 615	10 390	30 030	38 520	28 720
29	58 550	13 410	8 025	2 353	1 912	0 777	0 529	0 600	12 060	23 960	34 840	30 850
30	55 960		7 046	2 286	1 739	0 772	0 531	0 659	12 730	32 550	30 100	33 720
31	50 470		14 660		1 682		0 600	0 707		28 110		29 830
Average	62 100	36 470	7 449	5 456	2 255	1 329	0 793	0 802	3 589	20 640	49 390	37 380
Lowest	22 210	9 393	3 543	2 286	1 536	0 772	0 529	0 453	0 580	4 952	18 020	13 370
Highest	136 100	113 600	14 770	17 370	5 470	2 375	1 751	2 519	12 730	73 930	133 100	84 230
Peak flow	187 100	134 300	37 110	31 830	9 595	3 352	2 567	3 248	16 210	84 960	151 900	101 700
Day of peak	13	7	24	1	23	6	12	4	29	22	23	1
Monthly total (million cu m)	166 30	91 38	19 95	14 14	6 04	3 45	2 13	2 15	9 30	55 28	128 00	100 10
Runoff (mm)	201	111	24	17	7	4	3	3	11	67	155	121
Rainfall (mm)	242	103	54	8	61	21	47	68	152	142	208	118

**Statistics of monthly data for previous record (Oct 1958 to Dec 1983)**

Mean flows	Avg	35 320	28 960	21 230	13 590	10 230	5 337	4 808	5 333	7 870	19 000	28 280	37 240
Low	6 657	3 244	7 918	3 889	2 073	1 434	0 796	0 423	0 861	1 043	3 653	13 210	
(year)	1963	1959	1962	1974	1976	1976	1976	1976	1959	1978	1978	1963	
High	50 890	54 760	52 140	32 800	37 000	16 630	23 390	14 440	47 670	77 360	58 500	73 670	
(year)	1965	1970	1981	1966	1983	1972	1968	1965	1974	1960	1963	1965	
Runoff	Avg	115	85	69	43	33	17	16	17	25	62	89	121
Low	22	10	26	12	7	5	3	1	3	3	11	43	
High	165	160	169	103	120	52	76	47	150	251	184	239	
Rainfall	Avg	129	88	91	70	74	66	72	85	94	113	127	140
Low	28	5	18	8	28	10	23	24	14	14	56	41	
High	216	173	183	145	146	164	152	140	247	278	239	271	

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	18 920	18 070	105
Lowest yearly mean		11 310	1964
Highest yearly mean		27 590	1960
Lowest monthly mean	0 793	0 423	Aug 1976
Highest monthly mean	62 100	77 360	Oct 1960
Lowest daily mean	0 453	0 200	28 Aug 1976
Highest daily mean	136 100	363 800	4 Dec 1960
Peak	187 100	644 900	4 Dec 1960
10 %ile	56 090	46 850	120
50 %ile	5 847	9 488	62
95 %ile	0 609	1 238	49
Annual total (million cu m)	598 30	570 20	105
Annual runoff (mm)	724	690	105
Annual rainfall (mm)	1224	1149	107
[1941-70 rainfall average (mm)]		1183]	

**Station description**  
Velocity-area station**Factors affecting flow regime**

- Reservoir(s) in catchment
- Abstraction for public water supplies.
- Augmentation from effluent returns.



**052005 Tone at Bishops Hull****1984**Measuring authority: WWA  
First year: 1961Grid reference: ST 206250  
Level stn. (m OD): 16.20Catchment area (sq km): 202.0  
Max alt. (m OD): 409**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3 931	12 010	3 079	4 929	1 243	1 193	0 669	0 549	0 615	0 738	1 557	10 200
2	15 360	9 814	2 994	3 128	1 293	1 351	0 655	0 724	0 609	0 726	3 126	9 701
3	9 337	8 685	2 714	2 760	1 379	2 120	0 647	1 370	0 675	0 860	2 330	8 308
4	6 891	8 156	2 596	3 006	1 361	1 378	0 642	1 312	0 829	0 815	2 119	6 001
5	6 130	9 925	2 450	2 665	1 324	1 336	0 615	0 767	0 720	0 693	1 895	5 679
6	5 738	39 520	2 737	2 479	1 305	1 222	0 610	0 688	0 650	0 649	1 858	5 157
7	5 546	21 530	2 392	2 322	1 260	1 150	0 606	0 682	0 625	0 649	2 232	4 599
8	5 165	12 230	2 334	2 240	1 238	1 084	0 616	0 678	0 675	0 683	7 404	4 164
9	4 499	8 886	2 274	2 179	1 226	1 015	0 707	0 615	0 735	0 762	6 710	3 850
10	4 081	7 506	2 267	2 100	1 239	1 124	0 759	0 643	0 657	1 012	4 471	3 545
11	4 135	6 471	2 213	2 027	1 230	0 993	0 663	0 647	0 637	0 797	3 620	3 270
12	8 202	5 675	2 185	1 945	1 199	0 977	0 821	0 646	0 667	0 753	5 478	3 135
13	20 350	5 084	2 083	1 923	1 167	0 973	0 983	0 637	0 712	0 718	4 141	3 227
14	10 540	4 837	2 013	1 904	1 171	0 960	0 765	0 602	0 985	0 685	6 762	3 356
15	9 077	4 565	1 995	1 836	1 244	0 903	0 711	0 616	0 649	0 696	4 410	3 086
16	40 900	4 371	1 918	1 749	1 250	0 881	0 677	0 615	0 634	0 674	3 893	5 031
17	14 340	4 073	1 895	1 717	1 256	0 861	0 639	0 657	0 688	0 743	3 290	4 654
18	10 700	3 933	1 855	1 708	1 178	0 828	0 594	0 617	0 641	1 475	2 981	4 091
19	9 327	3 941	1 841	1 682	1 142	0 810	0 537	0 596	0 598	1 598	2 614	4 634
20	7 406	7 404	1 839	1 648	1 155	0 806	0 574	0 560	1 419	1 376	4 169	4 746
21	7 338	7 825	1 779	1 624	1 156	0 780	0 553	0 695	1 262	1 392	8 868	4 205
22	10 650	8 928	1 732	1 577	2 003	0 825	0 570	0 717	0 784	2 502	17 350	4 483
23	17 700	5 671	7 950	1 507	1 421	0 762	0 565	0 666	0 821	1 701	12 220	4 721
24	12 680	4 891	5 056	1 451	1 205	0 748	0 571	0 698	0 754	1 943	10 000	4 719
25	24 450	4 401	6 621	1 419	1 196	0 711	0 731	0 685	0 706	2 056	7 412	4 837
26	49 050	4 092	3 714	1 388	1 988	0 701	0 624	0 658	1 080	1 733	5 798	4 938
27	67 350	3 740	3 119	1 307	1 466	0 698	0 553	0 661	0 782	1 638	5 211	4 339
28	19 150	3 468	2 694	1 299	1 359	0 680	0 532	0 618	0 842	1 601	5 070	3 927
29	13 600	3 279	2 397	1 292	1 224	0 696	0 527	0 633	0 896	1 503	5 252	4 311
30	16 700		2 269	1 286	1 151	0 683	0 566	0 631	0 996	1 780	5 976	4 630
31	11 130		4 851		1 141		0 575	0 624		1 630		4 176
Average	14 560	8 100	2 822	2 003	1 296	0 975	0 641	0 694	0 778	1 180	5 274	4 830
Lowest	3 931	3 279	1 732	1 286	1 141	0 680	0 527	0 549	0 598	0 649	1 557	3 086
Highest	67 350	39 520	7 950	4 929	2 003	2 120	0 983	1 370	1 419	2 502	17 350	10 200
Peak flow	111 600	48 220	20 350	7 661	2 706	2 688	1 249	2 652	2 067	3 209	21 320	14 900
Day of peak	27	6	23	1	22	3	12	3	21	22	22	2
Monthly total (million cu m)	39 00	20 30	7 56	5 19	3 47	2 53	1 72	1 86	2 02	3 16	13 67	12 94
Runoff (mm)	193	100	37	26	17	13	8	9	10	16	68	64
Rainfall (mm)	250	98	74	6	63	31	27	56	105	105	192	83

**Statistics of monthly data for previous record (Feb 1961 to Dec 1983)**

Mean flows	Avg	5 791	6 175	4 601	2 878	2 214	1 464	1 241	0 969	1 261	2 090	3 292	5 134
Low (year)	Low	1 246	1 746	1 552	1 177	0 735	0 455	0 326	0 266	0 501	0 580	0 652	1 821
High (year)	High	10 580	14 000	9 259	6 616	6 582	2 770	5 628	1 686	4 892	9 872	7 611	11 280
Runoff	Avg	77	74	61	37	29	19	16	13	16	28	42	68
Low	Low	17	21	21	15	10	6	4	4	6	8	8	24
High	High	140	168	123	85	87	36	75	22	63	131	98	150
Rainfall	Avg	109	83	85	62	70	60	59	69	85	87	96	113
Low	Low	25	6	5	8	25	8	16	19	8	8	41	40
High	High	202	170	170	150	137	147	144	122	202	249	185	205

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	3 586	3 079	116
Lowest yearly mean		1 800	1964
Highest yearly mean		4 084	1974
Lowest monthly mean	0 641	0 266	Aug 1976
Highest monthly mean	14 560	14 000	Feb 1978
Lowest daily mean	0 527	0 179	22 Aug 1976
Highest daily mean	67 350	84 200	23 Feb 1978
Peak	111 600	112 700	11 Jul 1968
10 %ile	8 065	6 694	120
50 %ile	1 602	1 816	88
95 %ile	0 607	0 642	95
Annual total (million cu m)	113 40	97 16	117
Annual runoff (mm)	561	481	117
Annual rainfall (mm)	1090	978	111
[1941-70 rainfall average (mm)]		1027]	

**Factors affecting flow regime**

- Augmentation from surface water and/or groundwater.

**Station description**

Velocity-area station, improved by Crump weir of breadth 12.2 m in 1968

**053006 Frome(Bristol) at Frenchay****1984**Measuring authority: WWA  
First year: 1961Grid reference: ST 637772  
Level stn. (m OD) 19.96Catchment area (sq km): 148.9  
Max alt. (m OD): 193**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.842	6.086	1.033	1.157	0.340	0.921	0.196	0.169	0.174	0.440	1.110	2.278
2	17.060	4.138	1.011	0.990	0.437	0.679	0.189	3.353	0.148	0.410	6.780	1.963
3	18.130	2.930	0.840	0.923	0.329	0.638	0.191	2.844	0.658	0.470	5.330	2.958
4	7.083	3.935	0.888	0.860	0.313	0.461	0.197	4.309	0.310	0.350	2.690	2.518
5	3.931	5.197	0.751	0.792	0.303	2.100	0.198	1.288	0.208	0.290	1.830	2.265
6	2.898	7.047	0.830	0.762	0.295	0.746	0.193	0.605	0.177	0.270	2.260	2.123
7	2.335	5.175	0.747	0.735	0.267	0.587	0.177	0.537	0.162	0.280	2.240	1.692
8	1.817	3.261	0.709	0.621	0.266	0.458	0.164	0.404	0.188	0.460	4.940	1.471
9	1.543	2.213	0.678	0.673	0.276	0.451	0.159	0.344	0.385	0.450	6.649	1.373
10	1.494	1.848	0.706	0.661	0.324	0.321	0.197	0.303	0.206	0.370	4.178	1.266
11	2.901	1.652	0.769	0.683	0.294	0.306	0.341	0.272	0.183	0.330	2.505	1.130
12	4.092	1.470	0.832	0.614	0.256	0.288	0.488	0.256	0.183	0.300	4.435	1.107
13	5.414	1.325	0.741	0.578	0.249	0.309	0.288	0.251	0.476	0.280	4.513	1.962
14	3.662	1.216	0.702	0.565	0.260	0.401	0.315	0.244	0.649	0.260	2.792	3.099
15	3.032	1.143	0.674	0.540	0.451	0.308	0.213	0.238	0.753	0.250	2.056	2.600
16	15.660	1.049	0.650	0.517	0.810	0.292	0.185	0.232	0.216	0.250	1.632	4.846
17	7.959	0.996	0.615	0.495	0.734	0.291	0.163	0.228	1.296	0.620	1.369	3.273
18	3.697	0.934	0.582	0.482	0.360	0.277	0.176	0.205	0.481	2.350	1.201	2.692
19	2.599	0.902	0.574	0.450	0.302	0.270	0.166	0.184	1.005	3.020	1.051	5.283
20	1.933	1.696	0.508	0.438	0.430	0.267	0.161	0.178	6.871	1.560	2.789	4.809
21	1.792	3.472	0.569	0.424	0.511	0.257	0.181	0.188	2.514	1.480	8.086	2.921
22	2.253	4.764	0.566	0.538	4.110	0.251	0.168	0.199	1.500	7.110	14.470	2.493
23	8.620	2.623	3.314	0.425	0.806	0.250	0.147	0.200	0.790	4.900	19.310	2.395
24	4.554	1.885	4.433	0.399	0.520	0.241	0.155	0.184	0.565	2.660	16.900	2.246
25	4.545	1.571	6.027	0.385	0.745	0.214	0.174	0.187	0.459	2.760	8.915	2.689
26	10.590	1.395	3.659	0.366	0.919	0.234	0.162	0.164	0.392	1.840	4.420	2.969
27	6.237	1.252	2.482	0.339	0.565	0.236	0.141	0.156	0.350	1.250	3.208	2.504
28	4.269	1.174	1.855	0.337	0.498	0.225	0.146	0.152	0.620	2.030	3.146	1.896
29	3.997	1.097	1.457	0.320	0.417	0.228	0.148	0.192	0.480	1.440	2.841	3.374
30	4.975	1.308	0.337	0.365	0.215	0.173	0.173	0.267	0.590	1.370	2.332	5.793
31	4.913	1.235		0.484		0.258	0.258	0.187		1.400		3.547
Average	5.349	2.533	1.347	0.580	0.556	0.423	0.200	0.597	0.750	1.331	4.866	2.695
Lowest	1.494	0.902	0.508	0.320	0.249	0.214	0.141	0.152	0.148	0.250	1.051	1.107
Highest	18.130	7.047	6.027	1.157	4.110	2.100	0.488	4.309	6.871	7.110	19.310	5.793
Peak flow	31.860	8.706	8.876	1.258	9.772	5.196	0.900	8.167	13.040	9.470	27.980	7.701
Day of peak	2	6	25	1	22	5	11	3	20	22	23	29
Monthly total (million cu m)	14.33	6.35	3.61	1.50	1.49	1.10	0.54	1.60	1.94	3.56	12.61	7.22
Runoff (mm)	96	43	24	10	10	7	4	11	13	24	85	48
Rainfall (mm)	130	46	42	5	79	27	21	92	115	86	130	72

**Statistics of monthly data for previous record (Oct 1961 to Dec 1983)**

Mean flows	Avg	3.312	2.888	2.468	1.360	1.280	0.809	0.654	0.484	0.782	1.188	2.048	3.157
Low	0.670	0.613	0.637	0.476	0.290	0.220	0.122	0.139	0.208	0.162	0.211	0.820	0.820
(year)	1976	1965	1973	1976	1976	1976	1976	1976	1978	1978	1978	1978	1973
High	6.152	6.040	5.762	3.434	5.028	2.973	3.516	1.191	5.113	4.691	5.434	9.807	9.807
(year)	1962	1977	1981	1966	1983	1971	1968	1971	1974	1967	1963	1965	1965
Runoff	Avg.	60	47	44	24	23	14	12	9	14	21	36	57
Low	12	10	11	8	5	4	2	3	4	3	4	15	15
High	111	98	104	60	90	52	63	21	89	84	95	176	176
Rainfall	Avg	73	54	66	50	66	63	54	67	78	65	75	87
Low	18	3	21	9	19	6	12	26	21	5	35	25	25
High	137	127	146	97	147	139	129	127	182	183	165	208	208

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	1.766	1.698	104
Lowest yearly mean		0.804	1973
Highest yearly mean		2.258	1974
Lowest monthly mean	0.200	0.122	Jul 1976
Highest monthly mean	5.349	9.807	Dec 1965
Lowest daily mean	0.141	0.075	10 Aug 1976
Highest daily mean	19.310	53.530	18 Dec 1965
Peak	31.860	70.790	10 Jul 1968
10 %ile	4.415	4.116	107
50 %ile	0.687	0.777	88
95 %ile	0.173	0.201	86
Annual total (million cu m)	55.85	53.58	104
Annual runoff (mm)	375	360	104
Annual rainfall (mm)	845	798	106
[1941-70 rainfall average (mm)]		791]	

**Factors affecting flow regime**

- Flow influenced by groundwater abstraction and/or recharge
- Flow reduced by industrial and/or agricultural abstractions.

**Comment**

Flows from 27/9/84 to 8/10/84 are derived from the back-up analogue chart recorder.

**Station description**

Trapezoidal critical depth flume. Range 0.028/56.6 cu m/s

**054001 Severn at Bewdley****1984**Measuring authority: STWA  
First year: 1921Grid reference: SO 782762  
Level stn. (m OD) 17.00Catchment area (sq km) 4325.0  
Max alt. (m OD) 827**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	70 110	167 100	38 570	41 840	12 570	13 870	9 780	9 750	8 187	43 490	71 010	107 100
2	125 000	192 400	38 560	38 100	13 260	29 430	9 920	11 050	14 560	38 370	77 470	201 900
3	208 800	197 700	38 050	34 430	13 670	37 620	9 920	12 530	13 760	32 170	110 200	220 200
4	225 400	169 200	36 980	32 680	12 950	33 860	9 530	21 120	13 870	34 750	140 800	175 900
5	178 800	194 200	36 240	30 580	12 290	37 660	9 750	17 360	13 590	44 260	115 900	136 200
6	154 400	242 600	34 350	28 460	12 480	31 960	8 970	13 670	15 550	32 300	87 780	112 500
7	128 300	286 500	32 140	27 240	12 800	26 450	9 220	13 480	11 450	25 680	77 190	94 040
8	113 300	327 300	30 170	25 980	12 440	21 830	8 320	13 670	9 515	23 000	89 480	79 060
9	103 100	308 000	29 760	25 280	11 320	16 600	9 310	11 090	8 869	24 720	143 500	69 610
10	88 060	195 400	27 290	24 560	11 320	14 300	9 140	9 830	8 625	47 520	201 000	64 850
11	88 590	143 600	27 420	24 280	11 230	12 900	9 480	8 790	12 080	31 470	189 400	59 650
12	121 100	116 000	28 310	23 490	10 730	12 620	10 280	8 240	15 120	24 310	149 100	55 330
13	170 900	97 990	29 730	22 210	11 270	11 320	10 640	9 920	12 920	21 410	212 300	50 630
14	244 500	83 220	35 100	21 280	10 460	10 230	14 940	10 640	14 560	18 520	178 700	51 080
15	273 600	68 220	43 870	21 390	10 770	10 640	16 640	11 090	13 170	17 430	126 600	49 660
16	221 900	62 230	43 030	20 260	11 700	10 150	13 050	10 950	15 840	16 110	97 150	58 600
17	235 000	57 940	34 700	19 460	14 550	11 920	10 370	10 950	14 170	15 590	77 230	59 390
18	252 800	49 590	30 990	19 300	16 040	11 320	10 230	10 370	12 980	19 600	68 700	60 560
19	187 500	45 740	28 990	19 300	15 790	11 460	9 830	9 830	12 630	31 970	61 770	67 770
20	139 100	43 410	27 980	18 600	14 890	11 870	9 750	9 480	16 430	64 560	57 690	109 300
21	105 100	43 270	27 670	17 420	15 790	12 390	10 680	9 010	20 860	75 030	76 540	97 790
22	80 820	52 700	27 220	17 110	24 900	12 290	10 410	8 860	38 550	60 580	157 400	84 020
23	76 850	73 440	32 320	16 550	27 020	12 010	10 230	10 410	44 430	145 700	284 600	86 360
24	92 590	61 620	60 610	15 840	30 500	12 480	9 750	10 730	45 290	125 900	316 600	112 100
25	82 120	50 040	76 790	15 390	21 880	11 780	9 530	11 650	43 990	123 700	353 200	128 400
26	88 800	47 340	86 750	14 840	16 600	11 460	9 270	11 550	35 090	144 000	304 600	114 200
27	158 000	44 400	83 970	13 770	15 990	10 370	9 350	10 100	25 720	93 770	187 200	105 900
28	191 300	41 700	67 610	13 770	17 520	10 010	9 310	9 220	21 360	66 990	147 800	92 210
29	176 000	39 890	56 990	14 210	17 360	9 480	8 540	8 660	26 970	61 270	133 800	88 620
30	185 000		52 370	13 770	14 160	9 050	8 490	8 240	41 010	65 990	109 100	105 800
31	187 000		47 320		12 720		9 440	8 110		78 750		109 200
Average	153 100	120 800	41 670	22 380	15 060	16 310	10 130	10 980	20 040	53 190	146 800	97 030
Lowest	70 110	39 890	27 220	13 770	10 460	9 050	8 320	8 110	8 187	15 590	57 690	49 660
Highest	273 600	327 300	86 750	41 840	30 500	37 660	16 640	21 120	45 290	145 700	353 200	220 200
Peak flow	280 600	347 700	94 890	44 840	38 120	41 280	21 940	24 560	50 050	164 400	362 600	231 500
Day of peak	15	9	26	1	24	5	14	4	23	23	25	3
Monthly total (million cu m)	410 10	307 60	111 60	58 01	40 35	42 28	27 13	29 41	51 94	142 50	380 50	259 90
Runoff (mm)	95	70	26	13	9	10	6	7	12	33	88	60
Rainfall (mm)	134	66	53	9	62	51	25	75	125	96	176	82

**Statistics of monthly data for previous record (Apr 1921 to Dec 1983)**

Mean flows	Avg	114 100	103 100	74 740	52 010	39 960	29 790	23 340	28 010	37 430	54 340	90 000	101 000
	Low	22 090	21 200	23 200	15 890	10 220	9 811	9 592	7 460	7 676	10 500	21 740	17 840
	(year)	1963	1934	1943	1938	1938	1976	1976	1976	1949	1947	1942	1933
	High	250 600	232 300	261 900	112 400	131 600	117 400	91 220	92 360	126 700	140 700	238 300	297 400
	(year)	1939	1946	1947	1947	1969	1931	1968	1927	1946	1967	1940	1965
Runoff	Avg	71	58	46	31	25	18	14	17	22	34	54	63
	Low	14	12	14	10	6	6	6	5	5	7	13	11
	High	155	130	162	67	81	70	56	57	76	87	143	184
Rainfall	Avg	92	68	62	60	70	60	73	77	80	84	96	92
	Low	23	8	3	5	18	5	10	13	5	13	13	10
	High	226	170	175	128	186	136	193	160	209	174	244	211

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre 1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	58 700	62 120	94
Lowest yearly mean		36 460	1964
Highest yearly mean		94 740	1960
Lowest monthly mean	10 130	7 460	Aug 1976
Highest monthly mean	153 100	297 400	Dec 1965
Lowest daily mean	8 110	5 990	4 Sep 1976
Highest daily mean	353 200	637 100	21 Mar 1947
Peak	382 600		
10 %ile	162 000	148 300	109
50 %ile	29 420	37 930	78
95 %ile	9 269	11 440	81
Annual total (million cu m)	1856 00	1960 00	95
Annual runoff (mm)	429	453	95
Annual rainfall (mm)	954	914	104
[1941-70 rainfall average (mm)]		952]	

**Factors affecting flow regime**

- Reservoir(s) in catchment.
- Flow influenced by groundwater abstraction and/or recharge
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions
- Augmentation from surface water and/or groundwater
- Augmentation from effluent returns.

**Station description**

Velocity-area station. The aqueduct site (SO776783) recorder was superseded in January 1970 by the gauging section recorder. Variations used to derive the natural flow include storage changes in Lakes Vyrnwy and Clywedog and abstractions for public water supplies from the river

**054002 Avon at Evesham****1984**Measuring authority: STWA  
First year: 1937Grid reference: SP 040438  
Level stn. (m OD) 19.50Catchment area (sq km): 2210.0  
Max alt. (m OD): 320**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	12 050	50 340	15 870	16 850	6 873	8 973	4 826	4 030	3 922	5 210	5 677	16 890
2	28 130	53 540	16 180	14 920	6 840	9 238	4 863	4 723	3 950	4 786	8 172	16 150
3	69 370	45 830	14 260	13 150	6 715	11 480	5 176	6 099	4 856	5 074	16 920	16 320
4	53 390	45 490	13 270	12 370	6 618	10 230	4 839	10 220	7 131	5 290	12 930	17 380
5	33 380	52 270	13 370	11 320	6 477	11 180	4 637	9 181	5 863	4 854	9 169	16 030
6	25 420	63 960	13 810	10 960	6 398	10 220	4 569	6 448	4 604	4 189	10 830	16 180
7	21 850	97 570	12 810	10 400	6 351	8 983	4 542	8 851	4 158	4 243	12 890	15 250
8	19 640	88 670	12 210	10 010	6 312	7 737	4 326	7 933	4 031	4 379	15 450	13 720
9	16 820	50 820	11 860	9 936	6 261	6 694	4 343	6 181	4 390	4 618	21 400	12 470
10	14 820	33 690	11 570	9 928	6 577	6 325	4 325	5 305	4 704	4 501	20 190	11 350
11	14 750	26 940	12 260	10 630	9 683	6 240	4 251	4 839	4 594	4 320	13 180	10 460
12	15 700	23 140	17 140	10 350	7 368	6 137	5 111	4 577	4 293	4 277	21 180	9 981
13	18 220	20 930	15 750	9 511	6 351	5 999	5 943	4 570	4 271	4 191	33 640	10 250
14	20 040	18 630	15 430	9 184	6 249	5 840	5 499	4 874	5 684	3 927	21 040	13 400
15	17 930	16 400	14 080	9 143	6 275	5 695	6 967	4 860	5 672	3 964	15 230	12 860
16	20 540	15 330	12 860	8 953	6 690	5 257	5 695	4 827	4 806	4 236	11 460	24 920
17	28 120	14 220	11 910	8 598	7 064	5 521	5 014	4 785	7 269	4 510	9 635	31 500
18	21 780	13 270	10 890	8 325	6 538	5 711	4 761	4 463	8 350	6 062	8 687	24 880
19	16 260	12 940	10 720	8 265	6 254	5 130	4 417	4 279	5 812	6 385	8 156	24 610
20	13 080	13 100	10 270	7 873	6 241	6 441	4 338	4 249	9 880	5 944	9 754	28 360
21	11 660	14 170	9 902	6 789	9 013	7 242	4 285	4 073	13 380	5 196	20 870	26 480
22	12 450	19 230	9 382	7 145	20 370	6 204	4 242	4 211	9 997	9 109	39 010	23 560
23	36 930	25 640	10 950	7 163	17 510	6 003	4 184	4 300	6 542	11 740	107 300	24 970
24	49 380	20 730	80 800	7 000	10 030	5 995	4 058	4 149	5 554	8 299	161 200	32 480
25	31 290	17 320	75 130	7 115	7 976	5 933	4 034	4 146	5 183	9 084	98 250	34 590
26	56 430	16 300	72 230	6 939	9 739	5 601	3 871	4 064	5 012	7 129	42 780	29 320
27	97 920	17 100	56 530	7 064	9 235	5 253	3 952	4 061	4 471	5 732	27 930	24 500
28	94 660	17 080	35 450	6 968	11 570	5 061	3 937	4 104	4 494	5 407	22 730	18 530
29	72 520	16 370	25 630	6 777	9 546	4 991	3 808	4 060	4 623	5 251	18 990	16 420
30	53 520		21 740	6 773	7 914	4 969	3 896	4 038	5 118	5 621	16 730	19 790
31	58 260		19 490		7 058		4 273	4 016		6 612		22 940
Average	34 070	31 760	21 410	9 347	8 196	6 876	4 612	5 177	5 754	5 617	28 050	19 890
Lowest	11 660	12 940	9 382	6 773	6 241	4 969	3 808	4 016	3 922	3 927	5 677	9 981
Highest	97 920	97 570	75 130	16 850	20 370	11 480	6 967	10 220	13 380	11 740	161 200	34 590
Peak flow	102 400	103 000	83 620	18 500	25 840	13 390	8 171	13 570	14 830	13 690	177 800	37 640
Day of peak	27	7	24	1	22	3	12	5	21	23	24	24
Monthly total (million cu m)	91 27	79 58	57 35	24 23	21 95	17 82	12 35	13 87	14 91	15 05	72 70	53 27
Runoff (mm)	41	36	26	11	10	8	6	6	7	7	33	24
Rainfall (mm)	83	47	47	6	61	36	19	53	79	58	112	45

**Statistics of monthly data for previous record (Dec 1936 to Dec 1983)**

Mean	Avg	27 630	27 770	22 660	14 390	11 530	8 127	6 471	6 628	6 771	9 276	17 110	22 290
Flows:	Low	5 140	4 869	2 261	3 240	2 220	1 935	2 253	2 038	1 970	2 484	2 677	3 548
	(year)	1950	1944	1944	1938	1944	1976	1976	1943	1959	1959	1943	1943
	High	73 520	77 930	75 600	35 160	37 680	27 380	42 230	16 100	24 210	45 410	55 910	65 160
	(year)	1939	1977	1947	1966	1983	1977	1968	1969	1960	1960	1960	1965
Runoff:	Avg	33	31	27	17	14	10	8	8	8	11	20	27
	Low	6	6	3	4	3	2	3	2	2	3	3	4
	High	89	85	92	41	46	32	51	20	28	55	66	79
Rainfall:	Avg	60	43	48	43	56	52	57	71	56	57	64	60
(1937-1983)	Low	13	3	5	5	15	10	8	5	3	6	8	15
	High	127	122	140	94	130	115	122	130	127	150	163	121

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	15 000	15 000	100
Lowest yearly mean		6 895	1944
Highest yearly mean		25 030	1960
Lowest monthly mean	4 612	1 935	Jun 1944
Highest monthly mean	34 070	77 930	Feb 1977
Lowest daily mean	3 808	1 274	9 Oct 1959
Highest daily mean	161 200	277 100	11 Jul 1968
Peak	177 800	371 000	11 Jul 1968
10 %ile	29 790	33 520	89
50 %ile	9 064	7 911	115
95 %ile	4 111	2 551	161
Annual total (million cu m)	474 30	473 40	100
Annual runoff (mm)	215	214	100
Annual rainfall (mm)	646	667	97
[1941-70 rainfall average (mm)]		672]	

**Factors affecting flow regime**

- Flow influenced by groundwater abstraction and/or recharge
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from effluent returns.

**Station description**

Velocity-area station. Groundwater catchment extends into TWA



**055026 Wye at Ddol Farm****1984**Measuring authority: WELS  
First year: 1969Grid reference: SN 976676  
Level stn. (m OD): 192.76Catchment area (sq km): 174.0  
Max alt. (m OD): 752**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	36 690	28 000	2 774	2 536	0 479	0 835	0 390	0 353	1 714	6 129	8 264	29 580
2	43 650	26 440	3 166	2 301	0 470	0 722	0 365	1 417	1 247	9 880	13 860	21 890
3	26 020	20 500	2 593	2 164	0 474	1 336	0 341	1 029	3 688	14 700	17 840	19 850
4	17 340	27 610	2 590	2 075	0 463	1 024	0 322	0 863	4 042	10 770	15 220	13 390
5	32 240	32 450	2 306	1 924	0 426	1 574	0 290	0 747	2 138	7 647	11 070	11 530
6	18 380	57 040	2 118	1 811	0 418	1 311	0 272	0 617	1 559	5 934	8 829	8 659
7	14 660	31 850	2 002	1 703	0 394	1 022	0 254	0 924	1 278	6 369	7 421	7 033
8	11 120	21 290	1 887	1 624	0 378	0 849	0 232	0 715	1 087	14 930	15 860	5 837
9	11 000	13 910	1 801	1 510	0 370	0 703	0 236	0 572	2 937	11 440	24 100	5 060
10	24 220	10 490	1 727	1 428	0 371	0 620	0 254	0 493	6 572	6 904	18 680	4 323
11	23 460	8 085	1 768	1 484	0 348	0 580	0 256	0 431	5 161	5 450	18 440	3 787
12	43 050	6 243	2 054	1 347	0 338	0 562	0 630	0 382	3 381	4 396	31 230	3 351
13	39 250	5 063	2 096	1 249	0 319	0 602	0 656	0 355	2 886	3 648	18 310	3 170
14	23 180	4 218	2 176	1 135	0 307	1 339	0 607	0 382	5 431	3 083	17 890	8 928
15	14 420	3 538	2 017	1 263	0 327	0 967	0 633	0 332	3 568	2 625	12 160	6 930
16	28 570	3 099	1 771	1 212	0 467	0 796	0 494	0 311	2 523	2 298	9 584	6 263
17	16 090	2 916	1 642	1 064	0 697	0 676	0 415	0 292	3 402	3 789	7 707	8 172
18	11 350	2 537	1 575	1 141	0 664	0 596	0 367	0 276	2 621	7 749	6 099	14 560
19	8 226	2 241	1 503	0 981	0 525	0 565	0 341	0 258	2 280	10 990	4 963	23 840
20	6 283	2 779	1 463	0 907	0 470	0 533	0 305	0 230	13 930	10 550	8 650	13 820
21	5 099	9 584	1 411	0 828	0 470	0 496	0 267	0 216	19 340	14 660	19 330	9 714
22	5 369	7 857	1 375	0 772	1 837	0 688	0 240	0 216	12 930	41 280	30 910	12 650
23	10 280	5 484	6 252	0 711	1 197	0 702	0 221	0 226	11 910	19 780	49 700	12 240
24	6 203	4 730	5 383	0 655	0 774	0 946	0 207	0 249	7 990	30 640	29 930	17 510
25	5 177	4 188	6 106	0 620	0 636	0 716	0 193	0 252	5 625	24 680	18 170	13 170
26	7 394	3 805	5 336	0 574	0 606	0 632	0 177	0 234	4 237	15 250	12 650	9 944
27	14 430	3 410	4 504	0 557	0 561	0 559	0 170	0 219	4 493	10 410	13 550	8 089
28	15 570	3 024	4 255	0 531	0 540	0 510	0 167	0 209	8 169	8 427	13 580	6 765
29	23 130	2 827	3 678	0 511	0 480	0 470	0 149	0 290	7 057	9 977	12 000	8 766
30	21 760		3 164	0 478	0 426	0 433	0 152	0 392	8 533	13 210	10 380	7 977
31	17 420		2 851		0 427		0 191	3 858		9 458		6 820
Average	18 740	12 250	2 753	1 237	0 537	0 779	0 316	0 559	5 391	11 200	16 210	10 760
Lowest	5 099	2 241	1 375	0 478	0 307	0 433	0 149	0 209	1 087	2 298	4 963	3 170
Highest	43 650	57 040	6 252	2 536	1 837	1 574	0 656	3 858	19 340	41 280	49 700	29 580
Peak flow	108 000	92 390	16 390	2 673	2 709	1 883	0 875	5 375	25 250	52 680	69 910	51 230
Day of peak	12	6	23	1	22	5	12	31	21	22	23	18
Monthly total (million cu m)	50 20	30 69	7 37	3 21	1 44	2 02	0 85	1 50	13 97	29 99	42 02	28 82
Runoff (mm)	289	176	42	18	8	12	5	9	80	172	242	166
Rainfall (mm)	306	163	64	11	72	51	40	90	206	201	235	151

**Statistics of monthly data for previous record (Oct 1969 to Dec 1983)**

Mean flows	Avg	11 470	10 000	8 631	5 178	3 453	2 386	2 138	2 830	4 701	7 478	11 550	11 530
	Low	5 892	5 248	3 802	1 014	0 485	0 497	0 469	0 177	0 948	0 683	6 044	4 974
	(year)	1973	1975	1974	1974	1980	1975	1976	1976	1972	1972	1976	1971
	High	18 780	16 880	19 610	12 460	8 773	5 826	5 543	5 967	12 340	18 840	19 810	17 890
	(year)	1983	1970	1981	1972	1979	1972	1974	1973	1974	1981	1970	1974
Runoff	Avg	177	140	133	77	53	36	33	44	70	115	172	177
	Low	91	73	59	15	7	7	7	3	14	11	90	77
	High	289	235	302	186	135	87	85	92	184	290	295	275
Rainfall	Avg	190	151	145	96	87	87	75	103	139	140	197	187
	Low	98	49	60	13	25	21	14	13	44	39	97	95
	High	322	260	284	206	191	183	150	165	260	269	293	314

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	6 707	6 764	99
Lowest yearly mean		4 304	1976
Highest yearly mean		8 231	1974
Lowest monthly mean	0 316	0 177	Aug 1976
Highest monthly mean	18 740	19 810	Nov 1970
Lowest daily mean	0 149	0 083	15 Aug 1983
Highest daily mean	57 040	76 690	21 Feb 1970
Peak	108 000	252 200	5 Aug 1973
10 %ile	18 410	16 490	112
50 %ile	2 609	3 803	69
95 %ile	0 240	0 450	53
Annual total (million cu m)	212 10	213 40	99
Annual runoff (mm)	1219	1227	99
Annual rainfall (mm)	1590	1597	100
[1941-70 rainfall average (mm)]		1623]	

**Factors affecting flow regime**

- Abstraction for public water supplies.

**Station description**

Velocity-area station. Flat V weir installed 1972 Replaces long term station at Rhayader 055005

**056001 Usk at Chain Bridge****1984**Measuring authority: WELS  
First year: 1957Grid reference: SO 345056  
Level stn. (m OD) 22.63Catchment area (sq km): 911.7  
Max alt. (m OD): 886**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	60.380	105.200	20.270	16.560	6.242	5.241	3.798	2.723	2.228	17.760	33.740	98.560
2	178.600	84.480	19.700	15.400	6.237	5.931	3.698	3.439	2.487	19.670	41.680	89.170
3	119.700	72.510	18.460	14.710	6.167	10.440	3.574	3.668	2.647	44.930	45.640	90.140
4	73.820	77.590	17.780	14.440	6.292	9.784	3.507	3.827	3.767	28.940	35.160	66.560
5	71.930	88.030	17.010	13.690	6.026	12.990	3.474	3.945	4.393	19.910	30.470	66.390
6	57.020	149.300	16.040	13.070	5.855	12.130	3.712	3.417	3.241	15.500	27.000	51.470
7	50.040	107.100	15.140	12.550	5.737	9.213	3.705	3.284	2.861	13.330	25.880	44.490
8	45.510	78.750	14.490	12.050	5.636	8.094	3.647	3.183	2.696	12.180	74.350	38.980
9	38.420	60.100	13.970	11.770	5.571	7.177	3.646	3.113	2.790	13.970	85.320	35.040
10	44.640	50.580	13.790	11.390	5.638	6.603	3.750	3.034	3.082	11.380	68.990	31.130
11	66.310	43.880	13.450	11.270	5.620	6.151	3.774	2.970	3.526	9.836	49.540	28.050
12	86.210	38.600	13.700	11.150	5.495	6.506	3.748	2.947	3.068	9.231	102.500	25.970
13	197.900	34.470	13.780	10.350	5.319	7.386	4.491	2.941	3.017	8.695	68.040	25.200
14	115.100	31.280	13.390	9.970	5.232	7.334	4.167	3.028	10.400	8.065	76.790	27.130
15	68.770	28.580	12.430	9.760	5.203	7.266	3.876	3.014	7.843	7.409	54.140	25.560
16	167.600	26.600	11.810	9.595	5.934	7.118	3.802	2.893	5.460	7.043	43.410	28.530
17	81.940	25.010	11.330	9.279	6.848	6.821	3.727	2.712	4.838	7.541	36.650	27.830
18	59.550	23.100	10.860	9.012	6.448	6.656	3.681	2.575	5.288	38.570	32.130	33.630
19	48.320	21.440	10.540	8.768	5.679	6.462	3.552	2.514	4.763	51.940	28.000	55.360
20	40.500	25.290	10.170	8.490	5.422	6.414	3.528	2.323	15.040	30.660	27.970	44.690
21	37.070	45.320	9.992	8.258	5.995	6.152	3.503	2.366	18.610	22.870	61.250	35.560
22	41.460	46.810	9.763	7.913	5.946	6.100	3.454	2.205	14.820	107.400	147.400	34.610
23	62.540	35.880	36.050	7.639	10.240	6.173	3.352	2.378	11.110	61.150	234.200	37.020
24	47.170	30.360	39.460	7.458	7.264	5.552	3.288	3.460	10.250	67.580	134.400	61.890
25	40.900	27.570	31.090	7.355	6.574	5.313	3.266	3.371	8.612	86.960	81.950	55.040
26	89.860	25.740	30.380	7.188	6.226	5.093	3.188	2.811	7.260	44.310	60.840	45.690
27	141.800	24.080	27.730	6.943	5.986	4.941	3.048	2.555	6.606	33.170	58.130	37.490
28	103.700	22.650	23.600	6.822	5.810	4.727	3.007	2.384	28.950	29.060	69.510	32.860
29	126.000	21.290	20.660	6.763	5.528	3.987	3.004	2.338	23.930	36.540	60.030	33.060
30	116.500		18.680	6.690	5.079	3.854	3.010	2.446	23.080	59.030	56.660	34.670
31	92.020		17.680		4.930		3.039	2.457		42.900		30.840
Average	82.940	50.050	17.850	10.210	6.125	6.923	3.549	2.914	8.222	31.210	65.060	44.280
Lowest	37.070	21.290	9.763	6.690	4.930	3.854	3.004	2.205	2.228	7.043	25.880	25.200
Highest	197.900	149.300	39.460	16.560	10.240	12.990	4.491	3.945	28.950	107.400	234.200	98.560
Peak flow	346.900	197.500	107.400	17.140	14.450	18.000	4.885	4.028	35.780	163.600	296.500	128.200
Day of peak	2	6	23	1	22	5	13	2	28	22	23	1
Monthly total (million cu m)	222.20	125.40	47.80	26.46	16.41	17.94	9.50	7.80	21.31	83.59	168.60	118.60
Runoff (mm)	244	138	52	29	18	20	10	9	23	92	185	130
Rainfall (mm)	264	101	66	8	70	47	25	74	154	189	250	119

**Statistics of monthly data for previous record (Mar 1957 to Dec 1983)**

Mean flows	Avg	50.480	42.170	35.380	22.690	18.040	10.960	8.112	9.872	17.130	28.700	38.800	50.070
Low	10.850	12.690	10.010	8.122	6.301	4.274	3.390	2.699	2.941	4.303	16.030	20.380	20.380
(year)	1964	1963	1962	1974	1980	1957	1976	1978	1959	1978	1975	1963	1963
High	88.650	95.710	100.700	45.110	46.590	26.740	27.490	16.790	45.680	86.350	99.840	112.700	112.700
(year)	1974	1958	1981	1960	1983	1972	1968	1958	1974	1967	1960	1959	1959
Runoff	Avg	148	113	104	65	53	31	24	29	49	84	110	147
Low	32	34	29	23	19	12	10	8	8	13	46	60	60
High	260	254	296	128	137	76	81	49	130	254	284	331	331
Rainfall	Avg	156	114	115	85	93	75	77	95	131	132	147	167
Low	28	11	15	10	31	17	21	25	8	19	74	46	46
High	331	223	303	175	221	142	137	168	259	325	323	351	351

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	27.370	27.650	99
Lowest yearly mean		14.880	1973
Highest yearly mean		44.050	1960
Lowest monthly mean	2.914	2.699	Aug 1976
Highest monthly mean	82.940	112.700	Dec 1959
Lowest daily mean	2.205	1.607	27 Aug 1976
Highest daily mean	234.200	585.400	27 Dec 1979
Peak	346.900	945.000	27 Dec 1979
10 %ile	70.030	63.270	111
50 %ile	12.040	16.690	72
95 %ile	2.811	4.428	63
Annual total (million cu m)	865.50	872.50	99
Annual runoff (mm)	949	957	99
Annual rainfall (mm)	1367	1387	99
[1941-70 rainfall average (mm)]		1415]	

**Factors affecting flow regime**

- Reservoir(s) in catchment.

**Station description**

Velocity-area station. Intake to canal upstream of gauge. Low flows measured accurately at alternative station 056010 Trostrey weir

**062001 Teifi at Glan Teifi****1984**Measuring authority: WELS  
First year 1959Grid reference: SN 244416  
Level stn (m OD) 5.18Catchment area (sq km): 893.6  
Max alt (m OD): 595**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	40 910	77 520	19 890	11 790	4 547	2 906	1 910	1 527	0 981	41 600	43 500	94 200
2	72 840	70 580	18 870	11 120	4 523	2 981	1 870	2 348	1 222	40 740	64 630	104 000
3	79 160	62 920	17 170	10 640	4 270	4 647	1 831	2 677	1 600	65 300	73 670	98 630
4	63 720	56 410	16 130	10 500	4 245	4 569	1 799	2 800	1 615	52 160	64 040	74 120
5	61 970	51 740	15 410	9 997	4 217	4 523	1 589	2 645	2 535	39 830	51 950	77 110
6	55 190	52 320	14 390	9 640	4 167	5 716	1 529	2 800	2 377	28 810	41 160	58 760
7	48 980	59 050	13 450	9 349	4 086	5 037	1 529	2 340	1 785	23 720	34 450	48 470
8	44 380	52 180	12 580	8 976	4 046	4 372	1 529	2 294	1 483	21 230	55 190	41 310
9	38 540	41 850	11 950	8 726	3 930	3 847	1 529	2 190	1 483	21 880	62 320	36 270
10	35 950	35 850	11 380	8 505	3 885	3 597	1 653	1 928	1 497	18 550	64 690	30 280
11	43 070	31 370	11 360	8 480	3 839	3 389	1 682	1 709	3 041	15 780	67 310	27 170
12	50 210	27 650	11 980	8 333	3 777	2 730	1 794	1 575	2 818	14 500	134 100	24 380
13	62 620	24 740	10 930	7 883	3 694	2 623	1 915	1 973	2 800	13 340	111 800	22 990
14	57 770	21 450	10 270	7 578	3 659	2 598	2 830	1 947	4 053	12 170	100 600	40 670
15	47 090	19 410	9 833	7 500	3 616	2 597	2 876	1 679	6 221	11 220	73 390	59 820
16	83 670	18 100	9 501	7 307	3 978	2 569	2 514	1 506	5 002	10 510	57 230	60 730
17	63 400	17 180	9 000	6 796	4 854	2 517	2 305	1 483	4 749	12 410	46 070	58 570
18	51 240	16 070	8 672	6 744	4 634	2 419	2 135	1 483	10 060	31 610	38 840	57 460
19	41 790	15 610	8 474	6 568	4 278	2 353	2 044	1 483	7 586	32 790	32 590	65 900
20	35 090	24 010	8 172	6 395	4 073	2 326	1 972	1 483	10 600	27 710	33 820	58 140
21	31 330	44 860	7 906	6 146	3 907	2 265	1 888	1 190	15 300	29 720	48 740	48 230
22	33 500	70 920	7 743	5 903	6 281	2 211	1 749	1 745	18 030	76 440	69 120	44 840
23	49 500	52 390	23 390	5 544	6 303	2 168	1 644	1 483	17 760	79 640	103 100	47 370
24	70 620	41 900	28 490	5 366	5 163	2 138	1 600	1 589	37 080	124 900	106 200	88 610
25	54 910	35 340	19 310	5 256	4 535	2 081	1 582	1 497	30 940	160 800	82 440	78 430
26	59 920	29 930	16 320	5 162	4 351	2 077	1 559	1 483	19 240	93 890	60 540	70 940
27	65 910	26 090	16 340	5 071	4 260	2 057	1 538	1 483	23 280	64 680	60 220	58 970
28	70 460	23 260	15 470	4 879	4 157	2 007	1 520	1 483	76 660	53 280	65 870	49 580
29	71 760	21 200	14 240	4 764	3 977	1 973	1 506	1 483	53 080	50 440	62 100	54 510
30	71 880		13 540	4 658	3 080	1 952	1 488	1 286	52 710	57 420	58 780	57 450
31	68 100		12 620		2 724		1 483	1 084		49 460		54 000
Average	55 660	38 690	13 700	7 519	4 228	2 975	1 819	1 780	13 920	44 400	65 620	57 800
Lowest	31 330	15 610	7 743	4 658	2 724	1 952	1 483	1 084	0 981	10 510	32 590	22 990
Highest	83 670	77 520	28 490	11 790	6 303	5 716	2 876	2 800	76 660	160 800	134 100	104 000
Peak flow	103 900	85 730	37 270	12 220	7 616	5 926	3 037	2 800	85 030	183 100	149 200	120 700
Day of peak	16	22	24	1	22	6	14	2	28	25	12	1
Monthly total (million cu m)	149 10	96 93	36 70	19 49	11 32	7 71	4 87	4 77	36 08	118 90	170 10	154 80
Runoff (mm)	167	108	41	22	13	9	5	5	40	133	190	173
Rainfall (mm)	180	85	51	10	49	38	46	65	210	173	219	179

**Statistics of monthly data for previous record (Jul 1959 to Dec 1983—incomplete or missing months total 0.3 years)**

Mean flows	Avg	47 020	39 470	31 570	21 670	19 450	11 660	8 213	11 230	17 230	35 310	45 060	53 070
Low	7 086	11 140	8 281	7 481	4 280	3 537	1 878	1 128	1 072	3 887	16 060	17 820	
(year)	1963	1965	1962	1974	1982	1976	1976	1976	1976	1959	1972	1983	1963
High	106 000	81 100	96 730	35 490	36 780	41 700	24 930	29 350	48 680	102 000	78 080	93 960	
(year)	1974	1974	1981	1966	1979	1972	1968	1966	1974	1981	1977	1965	
Runoff	Avg	141	108	95	63	58	34	25	34	50	106	131	159
	Low	21	30	25	22	13	10	6	3	3	12	47	53
	High	318	220	290	103	110	121	75	88	141	306	276	282
Rainfall	Avg	145	97	103	86	83	79	78	96	121	149	153	156
	Low	28	12	25	19	29	17	25	16	10	40	76	28
	High	326	213	312	163	168	148	140	168	242	293	279	315

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	25 640	28 380	90
Lowest yearly mean		18 860	1964
Highest yearly mean		38 230	1974
Lowest monthly mean	1 780	1 072	Sep 1959
Highest monthly mean	65 620	106 000	Jan 1974
Lowest daily mean	0 981	0 731	29 Aug 1976
Highest daily mean	160 800	275 100	27 Dec 1979
Peak	183 100	303 300	27 Dec 1979
10 %ile	65 740	62 950	104
50 %ile	11 190	19 270	58
95 %ile	1 503	3 233	46
Annual total (million cu m)	810 80	895 60	91
Annual runoff (mm)	907	1002	91
Annual rainfall (mm)	1305	1346	97
{1941-70 rainfall average (mm)}		1333}	

**Station description**

Velocity-area station.

**Factors affecting flow regime**

- Reservoir(s) in catchment.
- Abstraction for public water supplies

**065001 Glaslyn at Beddgelert****1984**Measuring authority: WELS  
First year: 1961Grid reference: SH 592478  
Level stn. (m OD) 32.95Catchment area (sq km): 68.6  
Max alt. (m OD): 1090**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	8.607	22.910	1.782	0.878	0.475	0.482	0.646	0.906	1.290	6.807	4.924	7.490
2	16.630	11.610	2.227	0.798	0.455	0.439	0.551	3.789	1.128	9.886	4.970	6.113
3	8.540	10.770	2.117	0.785	0.455	1.112	0.522	4.244	10.570	10.660	5.996	8.774
4	6.880	17.900	4.622	0.783	0.444	0.853	0.505	3.097	9.600	6.713	7.533	9.297
5	17.390	11.380	3.431	0.767	0.419	0.791	0.493	2.019	4.052	4.716	4.858	16.170
6	8.816	10.110	2.648	0.743	0.390	0.657	0.482	1.886	2.618	4.196	4.069	7.842
7	7.849	6.923	2.245	0.702	0.340	0.537	0.443	2.053	2.055	5.912	4.013	6.104
8	4.869	5.515	1.897	0.651	0.322	0.442	0.392	1.500	1.683	10.760	5.089	4.748
9	6.758	4.456	1.654	0.805	0.317	0.374	0.376	1.160	2.718	6.996	10.120	3.860
10	32.460	3.832	1.466	0.613	0.315	0.331	0.429	0.908	3.924	4.615	7.085	3.488
11	40.540	3.067	2.052	0.657	0.298	0.298	0.452	0.781	3.961	3.707	7.238	3.503
12	21.200	2.316	2.173	0.659	0.284	0.329	0.508	0.708	3.896	3.385	17.370	3.170
13	13.440	1.961	2.074	0.650	0.270	3.688	0.582	0.643	11.760	4.143	7.814	2.711
14	8.246	1.793	1.889	0.695	0.259	5.126	1.003	0.588	13.110	3.622	7.161	5.476
15	5.155	1.635	1.695	0.829	0.265	2.602	1.015	0.554	5.601	2.960	5.590	6.638
16	24.600	1.682	1.507	0.710	0.277	1.682	0.814	0.516	4.834	2.922	4.508	5.519
17	8.175	1.917	1.327	0.788	0.325	1.179	0.718	0.480	7.123	5.529	3.425	9.660
18	5.385	1.648	1.170	1.239	0.311	0.820	0.679	0.457	4.974	12.370	2.452	11.850
19	4.331	1.340	1.077	2.251	0.295	0.684	0.571	0.434	3.839	20.240	2.506	13.200
20	3.626	1.341	1.037	3.089	0.281	0.625	0.493	0.484	4.549	8.612	5.634	11.350
21	2.803	4.266	1.012	1.998	0.268	0.579	0.431	0.485	10.540	19.950	26.660	6.312
22	2.660	4.587	0.987	1.429	0.437	0.804	0.380	0.440	8.755	42.300	18.110	20.980
23	7.092	3.219	1.191	1.124	0.322	1.550	0.351	0.548	12.010	12.480	12.100	19.960
24	5.023	2.535	1.532	0.943	0.290	1.959	0.309	0.650	11.170	25.580	7.863	18.210
25	3.857	2.061	1.312	0.799	0.288	1.907	0.289	0.623	6.527	18.710	5.324	10.520
26	3.810	1.665	1.180	0.718	0.289	1.398	0.282	0.584	4.346	8.126	4.557	5.980
27	4.090	1.463	1.445	0.670	0.310	1.133	0.312	0.546	11.450	5.531	21.360	4.036
28	8.009	1.362	1.445	0.621	0.291	1.063	0.305	0.558	18.500	6.702	18.590	3.309
29	8.017	1.405	1.305	0.559	0.264	0.957	0.301	0.696	11.060	35.450	10.110	7.107
30	13.990		1.193	0.508	0.245	0.799	0.311	0.747	10.440	13.870	5.755	5.945
31	8.527		1.055		0.291		0.411	0.952		6.559		5.567
Average	10.300	5.058	1.734	0.942	0.326	1.173	0.495	1.091	6.929	10.770	8.426	8.287
Lowest	2.660	1.340	0.987	0.508	0.245	0.298	0.282	0.434	1.128	2.922	2.452	2.711
Highest	40.540	22.910	4.622	3.089	0.475	5.126	1.015	4.244	18.500	42.300	26.660	20.980
Peak flow	78.870	35.880	5.400	3.707	0.624	9.033	1.096	4.924	31.330	74.670	63.560	37.900
Day of peak	11	1	4	19	22	13	14	3	27	29	21	23
Monthly total (million cu m)	27.59	12.67	4.64	2.44	0.87	3.04	1.33	2.92	17.96	28.86	21.84	22.20
Runoff (mm)	402	185	68	36	13	44	19	43	262	421	318	324
Rainfall (mm)	440	194	69	51	42	127	66	132	342	438	317	332

**Statistics of monthly data for previous record (Dec 1961 to Dec 1983—incomplete or missing months total 1.7 years)**

Mean flows	Avg	7.714	5.767	5.835	3.642	3.537	3.343	3.373	4.646	5.923	6.703	8.621	8.708
	Low	1.535	1.369	1.796	0.814	0.325	1.366	0.779	0.248	0.355	1.984	3.399	1.793
	(year)	1963	1965	1969	1974	1980	1967	1979	1976	1972	1972	1983	1963
	High	13.630	13.040	15.610	8.228	6.790	7.429	7.132	7.972	11.830	13.370	14.460	18.400
	(year)	1983	1977	1981	1975	1979	1971	1978	1978	1974	1980	1980	1965
Runoff	Avg	301	205	228	138	138	126	132	181	224	262	326	340
	Low	60	48	70	31	13	52	30	10	13	77	128	70
	High	532	480	609	311	265	281	278	311	447	522	546	640
Rainfall	Avg	313	205	244	185	187	202	205	254	294	316	369	339
	Low	28	41	127	20	39	78	72	16	62	136	130	74
	High	563	475	638	482	334	358	380	437	508	726	564	700

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	4.629	5.653	82
Lowest yearly mean		4.185	1968
Highest yearly mean		6.942	1980
Lowest monthly mean	0.326	0.248	Aug 1976
Highest monthly mean	10.770	16.400	Dec 1965
Lowest daily mean	0.245	0	7 Sep 1976
Highest daily mean	42.300	85.850	27 Oct 1980
Peak	78.870	130.200	16 Jul 1973
10 %ile	11.480	13.010	88
50 %ile	2.044	3.209	64
95 %ile	0.297	0.556	54
Annual total (million cu m)	146.40	178.40	82
Annual runoff (mm)	2134	2600	82
Annual rainfall (mm)	2550	3113	82
[1941-70 rainfall average (mm)]		2966]	

**Factors affecting flow regime**

- Regulation for HEP.

Station description  
Velocity-area station



**067015 Dee at Manley Hall****1984**Measuring authority: WELS  
First year 1970Grid reference SJ 348415  
Level stn (m OD) 25.35Catchment area (sq km), 1019.3  
Max alt. (m OD) 884**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	45 520	89 470	20 400	15 880	9 133	10 370	9 610	8 383	8 194	31 880	43 660	70 400
2	88 680	92 430	20 710	14 130	9 307	10 460	9 642	9 317	7 252	28 740	46 620	69 990
3	88 400	88 150	18 880	12 980	9 538	14 800	9 947	10 080	8 001	29 620	96 880	68 100
4	80 970	87 540	17 630	12 210	10 270	12 180	9 918	12 130	18 760	27 710	71 450	56 940
5	69 420	90 630	17 310	11 530	10 120	9 062	9 849	10 920	13 310	23 970	54 600	55 100
6	60 510	123 100	15 850	11 030	10 040	8 999	10 190	8 784	10 310	21 560	44 730	46 180
7	51 430	114 100	14 930	10 720	9 638	8 637	10 120	8 660	9 155	19 880	38 730	40 050
8	45 510	101 600	14 680	10 320	9 555	8 537	9 958	8 838	8 826	23 810	49 330	34 420
9	40 010	78 410	14 820	9 864	9 737	9 351	9 751	8 037	9 416	32 380	70 800	31 080
10	42 220	63 860	12 750	9 589	10 050	9 931	10 370	8 001	11 900	26 530	75 790	27 230
11	61 980	53 280	13 040	9 719	9 962	9 062	10 450	8 204	10 380	23 130	67 840	24 220
12	76 400	43 690	15 390	9 162	10 510	8 977	10 670	7 807	9 516	20 320	100 500	22 050
13	121 300	36 970	15 100	8 910	10 350	9 000	10 320	7 635	9 122	18 020	79 370	20 340
14	114 300	32 650	15 000	8 702	9 982	9 656	10 760	7 822	11 410	16 190	61 720	19 100
15	84 380	29 480	14 070	9 003	10 190	9 870	10 380	7 750	11 620	14 620	48 900	21 690
16	122 200	27 250	12 960	8 926	10 070	10 310	9 746	7 581	11 620	13 140	40 490	23 570
17	104 600	25 910	12 580	8 805	10 540	9 925	9 974	7 598	14 350	13 040	34 090	23 110
18	80 760	23 840	12 290	8 912	9 856	9 357	9 611	7 428	11 470	34 580	29 620	23 410
19	65 550	20 480	12 110	8 901	9 738	9 193	8 672	7 047	10 160	51 730	25 750	39 910
20	52 490	18 770	11 740	8 612	10 590	9 066	8 872	6 842	13 710	56 550	25 610	41 260
21	42 310	22 620	11 530	8 211	9 752	9 353	8 842	6 896	17 890	46 430	33 620	37 590
22	37 670	33 670	10 990	8 343	15 480	9 668	8 885	6 932	21 350	80 060	87 790	34 910
23	36 570	31 630	14 070	9 714	11 850	10 070	8 678	8 510	28 390	87 270	109 100	36 290
24	34 910	28 520	20 220	9 755	10 250	9 770	8 497	8 485	46 650	95 700	92 820	51 320
25	31 010	26 090	18 720	9 954	10 200	9 352	8 555	9 897	51 810	108 000	80 020	47 480
26	31 000	22 470	24 630	10 290	10 120	9 553	9 453	9 950	39 590	81 650	60 840	42 940
27	41 880	20 960	22 300	10 380	9 806	9 304	9 481	10 360	31 500	58 900	54 940	37 620
28	48 200	21 140	20 810	10 220	9 024	9 549	9 036	9 381	38 040	49 070	66 790	33 200
29	70 710	20 790	21 400	10 260	8 373	9 898	8 919	6 718	38 380	53 920	56 590	39 210
30	76 520		21 770	9 867	8 323	9 983	8 926	7 326	35 110	64 170	47 930	37 480
31	73 090		19 560		9 497		8 929	7 670		53 210		33 670
Average	65 180	50 600	16 390	10 160	10 060	9 773	9 581	8 419	18 910	42 120	59 900	38 380
Lowest	31 000	18 770	10 990	8 211	8 323	8 537	8 497	6 718	7 252	13 040	25 610	19 100
Highest	122 200	123 100	24 630	15 880	15 480	14 800	10 760	12 130	51 810	108 000	109 100	70 400
Peak flow	171 700	131 800	28 130	16 890	21 940	17 450	11 280	14 180	55 970	121 300	119 400	90 240
Day of peak	16	6	24	1	22	3	14	3	24	25	3	1
Monthly total (million cu m)	174 60	126 80	43 91	26 34	26 94	25 33	25 66	22 55	49 01	112 80	155 30	102 80
Runoff (mm)	171	124	43	26	26	25	25	22	48	111	152	101
Rainfall (mm)	217	102	60	13	56	52	27	105	170	184	228	123

**Statistics of monthly data for previous record (Oct 1937 to Dec 1983)**

Mean flows	Avg	51 810	45 560	33 240	23 860	17 900	13 730	13 110	17 030	23 950	33 360	47 220	52 460
Low	13 460	7 858	8 129	7 841	4 274	3 740	3 113	3 288	3 052	4 217	11 580	18 610	
(year)	1964	1963	1943	1938	1938	1961	1949	1955	1949	1947	1937	1963	
High	109 300	106 700	103 700	61 030	41 950	31 240	40 270	59 400	69 470	92 470	103 000	105 200	
(year)	1948	1946	1947	1970	1969	1972	1957	1957	1950	1967	1960	1965	
Runoff	Avg	136	109	87	61	47	35	34	45	61	88	120	138
	Low	35	19	21	20	11	10	8	9	8	11	29	49
	High	287	253	273	155	110	79	106	156	177	243	262	277
Rainfall	Avg	155	110	127	81	84	82	78	95	135	131	170	154
(1969-1983)	Low	60	37	54	10	39	16	31	9	45	41	66	46
	High	287	236	233	182	151	150	144	157	306	221	249	314

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	28 210	31 040	91
Lowest yearly mean		20 460	1964
Highest yearly mean		44 600	1954
Lowest monthly mean	8 419	3 052	Sep 1949
Highest monthly mean	65 180	109 300	Jan 1948
Lowest daily mean	6 718	1 926	30 Jul 1949
Highest daily mean	123 100	521 000	14 Dec 1964
Peak	171 700	16 Jan	
10 %ile	70 320	71 000	99
50 %ile	14 580	19 520	75
95 %ile	8 150	4 763	171
Annual total (million cu m)	892 10	979 50	91
Annual runoff (mm)	875	961	91
Annual rainfall (mm)	1337	1402	95
[1941-70 rainfall average (mm)]		1403]	

**Factors affecting flow regime**

- Reservoir(s) in catchment
- Abstraction for public water supplies
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from surface water and/or groundwater.

**Station description**

Asymmetrical compound Crump weir, superseding Erbstock, 067002, 1 km downstream. The two records have been combined (and corrected for area) to give an extended data series for this station

**068001 Weaver at Ashbrook****1984**Measuring authority: NWWA  
First year: 1937Gnd reference: SJ 670633  
Level stn. (m OD) 16.31Catchment area (sq km): 622.0  
Max alt. (m OD): 222**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	7 137	21 630	3 618	3 182	1 881	2 150	1 233	0 976	0 834	1 610	2 351	11 310
2	10 020	27 390	4 475	3 100	1 856	5 130	1 266	2 459	0 751	1 745	4 709	16 600
3	12 170	17 970	3 745	2 992	1 846	4 492	1 235	1 851	2 024	1 747	19 930	13 340
4	10 590	26 370	5 297	2 863	1 838	3 113	1 200	2 472	3 334	1 495	17 490	10 970
5	9 571	20 040	5 178	2 674	1 788	3 058	1 169	1 753	1 492	1 316	8 443	8 296
6	7 541	26 600	4 082	2 608	1 769	2 804	1 159	1 512	1 073	1 191	5 377	6 582
7	8 394	26 270	3 852	2 574	1 738	2 367	1 126	2 727	0 990	1 215	4 108	5 438
8	7 807	21 520	3 383	2 510	1 733	2 041	1 087	2 128	0 962	1 571	9 363	4 508
9	5 390	13 750	3 323	2 490	1 743	1 843	1 075	1 561	1 368	1 559	22 430	4 235
10	5 134	10 380	3 238	2 527	1 801	1 686	1 075	1 247	1 925	1 322	25 530	4 194
11	5 429	9 137	4 019	2 628	1 774	1 615	1 186	1 137	1 348	1 243	13 170	3 977
12	6 591	7 581	4 414	2 459	1 679	1 569	1 417	1 091	1 162	1 238	20 870	3 815
13	8 696	6 719	3 654	2 328	1 622	1 559	1 547	1 102	1 170	1 216	20 870	3 912
14	9 867	5 888	3 624	2 291	1 602	1 580	1 514	1 120	1 862	1 154	11 650	6 047
15	6 997	5 324	3 447	2 310	1 637	1 513	1 998	1 262	1 589	1 163	8 337	4 630
16	12 790	4 788	3 266	2 417	2 104	1 443	1 463	1 133	1 318	1 198	5 875	9 900
17	13 000	4 557	3 032	2 272	2 061	1 439	1 321	1 122	2 516	1 560	5 109	9 627
18	7 693	4 241	2 885	2 359	1 872	1 473	1 231	1 069	1 784	2 958	5 181	7 267
19	5 275	3 961	2 834	2 353	1 719	1 420	1 172	1 057	1 407	3 041	5 029	5 995
20	4 247	3 788	2 802	2 285	2 093	1 478	1 111	0 987	2 163	2 012	7 953	7 231
21	3 760	4 145	2 800	2 215	2 216	1 596	1 071	0 976	2 135	1 899	13 500	8 122
22	3 991	4 799	2 686	2 108	4 025	1 528	1 025	0 909	1 698	2 387	19 730	11 810
23	7 493	4 863	3 112	2 050	2 490	1 513	0 987	0 938	1 568	1 944	26 480	15 630
24	7 617	4 442	6 534	2 010	1 905	1 475	0 953	0 863	1 367	3 208	24 350	22 950
25	5 856	4 308	4 900	1 993	1 763	1 431	0 839	0 881	1 299	3 624	14 330	16 720
26	17 230	4 091	8 154	1 929	1 654	1 390	0 829	0 830	1 228	2 571	11 440	11 510
27	34 780	3 971	6 890	1 926	1 978	1 351	0 819	0 833	1 166	1 964	9 029	8 328
28	27 610	3 594	5 372	1 880	2 218	1 253	0 818	0 825	1 297	1 990	10 260	6 422
29	19 170	3 538	4 394	1 865	1 931	1 269	0 775	0 806	1 497	1 900	7 995	7 876
30	15 510		3 848	1 878	1 751	1 209	0 799	0 814	1 910	2 541	6 850	10 130
31	17 200		3 484		1 655		1 178	0 887		2 749		8 994
Average	10 470	10 540	4 076	2 369	1 927	1 926	1 151	1 269	1 541	1 882	12 260	8 915
Lowest	3 760	3 538	2 686	1 865	1 602	1 209	0 775	0 806	0 751	1 154	2 351	3 815
Highest	34 780	27 390	8 154	3 182	4 025	5 130	1 998	2 727	3 334	3 624	26 480	22 950
Peak flow	36 890	32 510	8 957	3 242	4 932	6 064	2 803	3 405	6 878	4 805	31 440	24 250
Day of peak	27	6	26	1	22	2	15	7	3	24	9	24
Monthly total (million cu m)	28 04	26 40	10 92	6 14	5 16	4 99	3 08	3 40	4 00	5 04	31 77	23 88
Runoff (mm)	45	42	18	10	8	8	5	5	6	8	51	38
Rainfall (mm)	83	45	39	11	45	48	26	49	91	65	135	57

**Statistics of monthly data for previous record (Oct 1937 to Dec 1983—incomplete or missing months total 1.8 years)**

Mean flows	Avg	10 410	9 412	6 688	4 713	3 872	2 776	2 838	3 048	3 417	4 552	7 715	9 339
	Low	1 965	2 376	2 183	1 490	0 903	1 125	0 736	0 641	0 919	1 184	1 303	2 429
	(year)	1964	1965	1938	1938	1946	1962	1976	1976	1964	1947	1942	1947
	High	21 950	19 860	18 580	10 360	22 720	6 995	12 750	8 404	16 990	15 970	22 540	22 250
	(year)	1939	1980	1947	1983	1969	1954	1968	1971	1957	1954	1954	1965
Runoff	Avg	45	37	29	20	17	12	12	13	14	20	32	40
	Low	8	9	9	6	4	5	3	3	4	5	5	10
	High	95	80	80	43	98	29	55	36	71	69	94	96
Rainfall	Avg	68	51	51	49	62	58	69	72	68	68	76	71
	Low	18	8	18	2	18	13	16	6	5	15	13	10
	High	145	145	127	98	194	142	168	175	169	137	170	152

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	4 833	5 716	85
Lowest yearly mean		2 752	1964
Highest yearly mean		9 209	1954
Lowest monthly mean	1 151	0 641	Aug 1976
Highest monthly mean	12 260	22 720	May 1969
Lowest daily mean	0 751	0 394	17 Aug 1976
Highest daily mean	34 780	84 950	9 Feb 1946
Peak	36 890	212 400	8 Feb 1946
10 %ile	11 700	12 500	94
50 %ile	2 404	3 263	74
95 %ile	0 946	1 130	84
Annual total (million cu m)	152 80	180 40	85
Annual runoff (mm)	246	290	85
Annual rainfall (mm)	694	763	91
[1941-70 rainfall average (mm)]		754]	

**Factors affecting flow regime**

- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.
- Augmentation from effluent returns

**Station description**

Velocity-area station. In 1978 V shaped bed control of steel piles with capping installed

**071001 Ribble at Samlesbury****1984**Measuring authority: NWWA  
First year: 1960Grid reference: SD 589304  
Level stn (m OD) 6 00Catchment area (sq km): 1145.0  
Max alt (m OD) 680**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	83 580	152 300	10 910	9 906	4 946	3 019	2 822	2 381	25 390	20 570	25 280	39 160
2	129 600	155 900	39 360	8 499	4 899	4 212	2 853	7 053	37 040	13 800	43 120	36 330
3	99 010	124 700	18 580	7 382	5 013	11 410	2 762	26 920	54 030	12 840	406 300	44 950
4	50 450	126 300	41 160	6 791	4 966	8 017	2 694	17 680	98 980	19 900	106 700	35 410
5	82 500	112 500	26 410	6 341	4 597	8 556	2 644	6 875	21 100	13 250	47 620	39 740
6	66 460	175 800	18 040	6 105	4 137	7 829	2 635	4 657	10 520	9 531	31 530	29 640
7	73 610	85 280	14 190	8 420	3 986	4 875	2 574	10 960	7 360	10 610	25 280	21 380
8	37 540	122 500	11 980	6 966	3 784	3 745	2 404	6 833	6 096	73 300	24 160	17 680
9	26 050	46 780	10 710	6 432	3 681	3 120	2 351	4 454	20 860	54 610	60 270	17 850
10	109 100	39 330	9 797	6 368	3 944	2 645	2 557	3 230	21 260	21 890	79 850	15 370
11	280 900	33 730	10 240	10 230	4 207	2 572	2 697	2 763	12 380	30 900	37 440	13 610
12	137 500	26 040	11 830	9 459	3 367	3 468	5 997	2 424	11 970	29 770	123 600	12 030
13	154 200	21 260	9 791	7 091	3 006	159 500	5 144	2 318	16 760	18 210	72 810	11 370
14	98 410	14 100	9 118	6 255	2 834	61 460	3 509	2 462	91 610	42 540	37 420	13 010
15	55 020	11 730	8 758	6 409	2 801	17 860	3 152	2 313	35 290	29 200	26 900	12 950
16	154 200	10 540	8 080	5 777	2 847	10 900	3 049	2 272	16 980	17 180	21 670	11 040
17	103 500	13 210	6 657	5 243	2 941	8 041	2 580	2 292	96 110	21 730	19 850	22 130
18	58 330	12 700	6 299	4 998	2 748	6 301	2 479	2 265	32 080	83 430	18 500	43 830
19	37 700	11 060	6 090	4 973	2 681	5 219	2 334	2 103	17 300	102 400	16 490	109 000
20	25 970	9 690	6 056	4 934	2 749	4 682	2 108	1 971	12 200	96 060	17 870	79 200
21	20 890	12 540	6 087	5 144	4 032	4 308	1 983	1 957	71 830	36 970	129 900	66 330
22	19 140	23 830	5 770	4 903	8 582	6 759	1 876	2 046	111 200	195 400	185 000	69 440
23	19 030	19 930	5 925	4 747	4 334	4 944	1 916	2 078	63 460	82 170	136 100	70 960
24	17 490	15 430	33 730	4 753	5 625	4 385	1 912	2 006	26 310	104 300	76 550	52 870
25	16 010	12 710	24 200	4 807	5 966	4 913	1 926	1 998	17 100	110 100	78 010	46 830
26	17 090	11 310	25 830	4 875	3 565	4 296	1 909	1 904	12 520	83 440	55 150	43 080
27	44 360	10 610	15 840	4 981	5 648	3 588	1 999	1 962	10 480	46 130	64 520	24 920
28	78 140	9 764	16 200	4 931	6 985	3 318	2 199	2 145	10 630	51 990	119 200	20 020
29	153 400	9 407	13 780	4 856	3 916	3 156	2 120	3 838	12 060	67 520	54 430	21 650
30	133 300		18 160	4 877	3 324	2 972	1 959	2 749	43 180	69 190	34 710	27 660
31	87 180		13 380		2 920		2 652	10 700		36 150		26 460
Average	79 670	49 340	14 930	6 248	4 162	12 670	2 639	4 762	34 140	51 780	72 540	35 350
Lowest	16 010	9 407	5 770	4 747	2 681	2 572	1 876	1 904	6 096	9 531	16 490	11 040
Highest	280 900	175 800	41 160	10 230	8 582	159 500	5 997	26 920	111 200	195 400	406 300	109 000
Peak flow	437 200	369 200	63 770	12 050	17 220	385 100	12 100	68 530	186 700	248 300	598 600	167 200
Day of peak	11	6	2	11	22	13	12	3	4	22	3	19
Monthly total (million cu m)	213 40	123 60	40 00	16 20	11 15	32 84	7 07	12 75	88 48	138 70	188 00	94 68
Runoff (mm)	186	108	35	14	10	29	6	11	77	121	164	83
Rainfall (mm)	224	85	61	19	39	102	27	91	191	185	208	95

**Statistics of monthly data for previous record (May 1960 to Dec 1983)**

Mean flows	Avg	50 160	37 450	35 160	26 470	19 520	14 250	15 750	23 740	30 070	41 180	53 480	54 700
	Low	10 610	9 565	11 790	5 601	4 048	5 031	4 578	2 958	5 782	5 716	20 770	15 190
	(year)	1963	1965	1975	1974	1980	1975	1976	1976	1972	1972	1983	1971
	High	80 040	80 890	104 700	54 820	46 460	33 520	40 220	68 920	65 820	118 400	88 610	120 200
	(year)	1983	1966	1981	1970	1967	1966	1960	1967	1968	1967	1963	1965
Runoff	Avg	117	80	82	60	46	32	37	56	68	96	121	128
	Low	25	20	28	13	9	11	11	7	13	13	47	36
	High	187	171	245	124	109	76	94	161	149	277	201	281
Rainfall	Avg	131	87	106	83	86	90	88	114	137	135	145	138
(1961-1983)	Low	18	17	43	3	16	27	21	20	48	50	53	43
	High	214	189	280	171	178	166	158	196	277	304	221	278

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	30 580	33 490	91
Lowest yearly mean		22 040	1971
Highest yearly mean		45 020	1967
Lowest monthly mean	2 639	2 958	Aug 1976
Highest monthly mean	79 670	120 200	Dec 1965
Lowest daily mean	1 876	2 106	28 Aug 1976
Highest daily mean	406 300	675 000	27 Oct 1980
Peak	598 600	891 300	12 Dec 1984
10 %ile	87 770	81 350	108
50 %ile	12 030	16 530	73
95 %ile	2 123	4 552	47
Annual total (million cu m)	967 00	1057 00	91
Annual runoff (mm)	845	923	91
Annual rainfall (mm)	1327	1340	99
[1941-70 rainfall average (mm)]		1329]	

**Factors affecting flow regime**

- Reservoir(s) in catchment.
- Augmentation from effluent returns

**Station description**

Original a velocity-area station. A compound weir for more accurate measurement of low and medium discharges was completed in 1970 with Crump profile flat V centre section and horizontal flank weirs of Crump profile. Velocity-area station became the primary gauging site in 1981 due to vandalism at the weir site

**073010 Leven at Newby Bridge****1984**Measuring authority: NWWA  
First year: 1939Grid reference: SD 367863  
Level stn. (m OD) 37.28Catchment area (sq km): 247.0  
Max alt. (m OD): 873**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	30 300	27 680	4 638	3 431	2 771	0 648	1 507	0 584	0 488	15 870	30 460	30 930
2	31 180	39 280	7 979	3 095	2 269	0 711	1 563	0 681	0 498	14 710	27 230	29 060
3	33 220	46 320	7 887	2 791	1 884	0 936	1 022	1 370	0 915	13 970	35 930	29 130
4	30 060	50 140	9 181	2 646	1 834	1 152	0 907	1 715	2 892	13 070	42 300	29 800
5	29 940	51 850	10 240	2 427	1 793	1 218	0 802	1 249	3 165	11 450	35 450	30 620
6	29 290	54 180	9 969	2 537	1 891	1 420	0 758	0 830	2 512	9 465	28 870	30 320
7	28 070	50 170	9 359	2 269	1 597	1 590	0 731	1 131	1 987	8 341	23 730	27 480
8	25 420	45 590	8 453	2 198	1 207	1 334	0 652	0 749	1 451	11 770	19 830	24 420
9	22 400	39 040	7 581	2 097	1 131	0 987	0 699	0 637	4 195	14 700	19 330	20 830
10	22 780	31 840	6 855	2 067	1 378	0 828	1 007	0 602	6 013	13 170	23 370	17 470
11	33 600	26 580	6 512	2 469	1 164	0 769	1 020	0 549	5 805	12 010	24 140	14 580
12	36 590	22 480	6 188	2 354	1 003	0 704	1 066	0 545	5 184	10 340	37 230	12 040
13	49 170	19 110	5 715	2 282	0 808	5 681	1 181	0 534	4 928	9 887	38 600	9 884
14	47 840	16 150	4 944	2 372	0 753	11 880	1 264	0 529	7 285	11 970	34 270	8 204
15	41 870	13 590	4 289	2 641	0 785	10 380	1 253	0 531	7 751	12 530	27 500	7 569
16	38 680	11 520	3 909	2 587	0 765	8 120	1 038	0 528	7 435	11 380	23 010	6 677
17	38 840	9 875	3 623	2 422	1 346	6 252	0 856	0 523	12 010	9 775	19 300	6 731
18	35 880	8 564	3 313	3 128	1 093	4 656	0 831	0 519	12 550	12 920	16 170	8 309
19	31 620	7 282	3 068	5 869	0 979	3 400	0 865	0 517	11 120	25 590	13 420	14 980
20	25 130	6 369	2 894	8 975	1 061	2 410	0 834	0 514	9 618	33 740	11 780	18 960
21	20 970	5 990	2 697	9 014	1 174	1 806	0 794	0 511	9 831	34 470	13 450	20 640
22	18 430	6 438	2 565	8 338	1 413	3 041	0 771	0 512	13 020	53 540	22 420	23 630
23	16 610	6 249	2 527	7 216	0 737	3 712	0 661	0 515	16 450	59 760	26 960	33 290
24	14 100	6 257	3 228	6 336	0 762	3 537	0 593	0 514	15 340	54 830	27 800	35 610
25	12 340	6 034	3 807	5 440	0 932	3 137	0 542	0 503	13 120	54 640	25 590	33 340
26	10 740	5 528	3 685	4 814	0 954	2 549	0 535	0 494	11 050	51 650	22 810	30 840
27	10 270	5 029	3 839	3 988	0 922	2 514	0 532	0 486	9 820	45 020	26 190	26 230
28	11 230	4 537	3 894	3 626	0 730	2 293	0 503	0 474	11 650	40 480	38 240	22 200
29	17 330	4 067	3 848	3 200	0 624	1 890	0 479	0 462	12 540	40 040	37 630	18 900
30	22 300	4 007	2 884	0 623	1 650	0 547	0 449	0 449	15 540	42 540	33 540	16 700
31	25 180	3 997	0 602	0 602	0 602	0 554	0 454	0 454	36 380	36 380	36 380	15 810
Average	27 140	21 650	5 313	3 850	1 193	3 040	0 851	0 652	7 872	25 480	26 880	21 130
Lowest	10 270	4 067	2 527	2 067	0 602	0 648	0 479	0 449	0 488	8 341	11 780	6 677
Highest	49 170	54 180	10 240	9 014	2 771	11 880	1 563	1 715	16 450	59 760	42 300	35 610
Peak flow	50 990	54 790	10 680	9 587	3 345	12 120	2 344	2 031	17 010	63 530	44 500	37 110
Day of peak	13	6	5	20	1	14	2	4	23	22	4	23
Monthly total (million cu m)	72 70	54 24	14 23	9 98	3 20	7 88	2 28	1 75	20 40	68 26	69 69	56 61
Runoff (mm)	294	220	58	40	13	32	9	7	83	276	282	229
Rainfall (mm)	326	135	64	44	22	123	40	91	252	336	317	219

**Statistics of monthly data for previous record (Jan 1939 to Dec 1983)**

Mean flows	Avg	19 670	16 620	13 360	11 160	7 770	6 537	7 385	10 310	14 560	17 230	20 340	20 870
Low	1 935	0 974	3 699	1 796	0 641	0 545	0 775	0 722	0 560	1 438	6 873	8 208	8 208
(year)	1963	1963	1962	1974	1980	1978	1941	1955	1959	1972	1983	1963	1963
High	38 020	31 030	29 970	21 640	16 940	18 730	18 990	25 580	33 930	50 170	36 350	40 110	40 110
(year)	1975	1945	1981	1949	1964	1972	1953	1962	1946	1967	1954	1954	1954
Runoff	Avg	213	164	145	117	84	69	80	112	153	187	213	226
Low	21	10	40	19	7	6	8	8	8	6	16	72	89
High	412	304	325	227	184	197	184	277	356	544	381	435	435
Rainfall	Avg	228	152	156	119	120	126	147	180	220	218	236	232
Low	26	20	32	12	29	17	51	7	29	30	17	90	90
High	439	295	341	243	241	289	287	361	427	557	428	431	431

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	12 050	13 800	87
Lowest yearly mean		9 234	1973
Highest yearly mean		21 840	1954
Lowest monthly mean	0 652	0 545	Jun 1978
Highest monthly mean	27 140	50 170	Oct 1967
Lowest daily mean	0 449	0 108	7 Oct 1972
Highest daily mean	59 760	115 900	2 Dec 1954
Peak	63 530	135 800	2 Dec 1954
10 %ile	33 760	30 340	111
50 %ile	6 182	10 170	61
95 %ile	0 524	1 299	40
Annual total (million cu m)	381 00	435 50	87
Annual runoff (mm)	1543	1763	87
Annual rainfall (mm)	1969	2134	92
[1941-70 rainfall average (mm)]		2189]	

**Factors affecting flow regime**

- Reservoir(s) in catchment.

**Station description**

Compound Crump weir supersedes the original station 073001 in 1970. All flow records from 1939 combined in single sequence.



**076007 Eden at Sheepmount****1984**Measuring authority NWWA  
First year: 1967Grid reference: NY 390571  
Level stn (m OD): 6.97Catchment area (sq km): 2286.5  
Max alt. (m OD): 950**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	111 700	107 300	31 790	30 120	13 450	10 550	9 576	12 560	13 850	40 560	57 300	117 200
2	173 300	179 700	53 090	26 920	13 320	13 370	9 315	9 527	13 010	31 960	60 170	136 400
3	123 600	187 000	42 230	25 320	13 160	14 000	9 182	17 810	17 630	30 190	462 100	98 320
4	81 000	157 700	110 500	23 640	12 980	16 660	9 000	34 970	52 800	36 080	258 300	90 390
5	93 370	164 600	77 070	21 910	12 860	19 510	8 787	16 920	21 980	28 810	120 800	113 100
6	83 930	191 900	55 340	21 520	12 640	37 800	8 649	13 040	14 580	23 130	87 340	107 300
7	87 410	143 200	45 670	21 580	12 340	18 480	8 534	22 840	12 220	20 990	90 710	89 330
8	62 710	136 800	40 120	21 110	12 100	13 590	8 307	17 990	11 670	34 870	76 960	75 870
9	52 960	89 270	36 210	20 540	12 010	12 020	8 271	13 050	16 010	39 020	112 100	72 270
10	80 160	80 370	33 670	21 300	12 150	10 760	8 409	11 190	15 290	25 340	178 900	59 960
11	205 700	90 380	33 010	27 380	12 050	10 130	8 304	10 170	14 060	22 670	98 210	51 890
12	135 500	82 280	33 480	25 330	11 680	10 080	8 354	9 663	12 520	20 260	223 000	46 260
13	335 400	64 090	34 310	21 060	11 430	32 870	8 304	9 242	12 840	19 430	169 000	41 920
14	157 300	53 720	30 050	20 490	11 240	32 920	8 588	8 936	18 380	27 590	103 000	39 060
15	107 700	48 240	27 910	20 120	11 070	17 510	8 664	8 904	21 430	29 510	78 710	36 660
16	180 000	43 360	25 690	19 200	11 150	14 010	8 365	8 731	16 400	21 640	66 940	33 720
17	183 300	39 980	23 960	18 700	11 220	12 640	8 074	8 558	83 410	19 430	63 970	39 530
18	107 800	37 620	22 480	17 760	10 940	11 650	7 934	8 545	43 000	74 860	63 320	56 410
19	79 000	34 120	21 420	20 450	10 850	11 330	7 819	8 375	23 870	174 900	59 510	103 000
20	62 000	30 640	21 100	22 430	10 670	10 980	7 701	8 035	19 100	162 900	49 350	120 900
21	53 090	33 620	20 480	21 510	10 860	10 790	7 589	7 892	31 870	95 090	73 960	121 100
22	48 860	45 280	19 580	18 640	11 060	11 420	7 475	7 762	104 000	195 100	174 400	86 680
23	46 670	43 640	22 980	17 330	11 080	12 170	7 420	7 730	83 780	141 200	175 300	123 600
24	42 520	37 550	73 740	16 680	10 690	11 680	7 380	7 711	45 030	107 100	118 800	114 500
25	39 320	34 540	70 510	15 960	14 060	11 360	7 488	7 679	31 750	133 200	84 790	99 930
26	37 630	31 810	90 570	15 410	12 710	11 030	7 409	7 685	24 610	89 600	73 580	100 200
27	64 180	29 730	58 900	15 060	11 430	10 310	7 600	7 704	23 070	70 030	131 400	71 360
28	92 570	28 520	57 290	14 730	10 910	10 230	8 296	8 133	44 080	63 540	245 800	65 150
29	164 300	27 300	50 310	14 240	10 580	9 895	8 905	9 280	38 180	78 310	138 000	70 060
30	120 700		41 090	13 740	10 300	9 689	8 527	8 856	44 960	95 290	96 170	71 860
31	106 600		35 470		9 987		11 470	10 160		70 470		63 570
Average	106 900	78 420	43 230	20 320	11 710	14 650	8 377	11 280	30 850	65 260	126 400	81 210
Lowest	37 630	27 300	19 580	13 740	9 987	9 689	7 380	7 679	11 670	19 430	49 350	33 720
Highest	335 400	191 900	110 500	30 120	14 060	37 800	11 470	34 970	104 000	195 100	462 100	136 400
Peak flow	470 000	213 500	122 300	32 280	16 170	73 340	14 680	44 260	132 200	298 500	634 700	175 900
Day of peak	13	6	4	1	25	13	31	5	17	22	3	2
Monthly total (million cu m)	286 40	196 50	115 80	52 68	31 36	37 97	22 44	30 21	79 95	174 80	327 60	217 50
Runoff (mm)	125	86	51	23	14	17	10	13	35	76	143	95
Rainfall (mm)	177	72	77	19	25	70	38	80	163	146	208	111

**Statistics of monthly data for previous record (Oct 1967 to Dec 1983—incomplete or missing months total 3.0 years)**

Mean flows	Avg	86 510	60 520	56 090	39 430	29 770	23 160	20 420	20 560	35 420	65 640	73 240	69 360
	Low	42 850	37 540	24 360	13 070	11 050	10 420	9 732	7 026	9 218	7 965	30 200	32 480
	(year)	1973	1973	1975	1974	1974	1973	1976	1976	1972	1972	1983	1971
	High	151 200	100 000	119 700	63 960	69 470	50 380	36 990	54 790	87 320	225 000	123 700	139 200
	(year)	1975	1974	1968	1970	1983	1972	1968	1971	1968	1967	1982	1974
Runoff	Avg	101	64	66	45	35	26	24	24	40	77	83	81
	Low	50	40	29	15	13	12	11	8	10	9	34	38
	High	177	106	140	73	81	57	43	64	99	264	140	163
Rainfall	Avg	129	74	97	59	70	78	78	89	107	114	135	116
(1968	Low	74	28	43	8	28	37	45	19	26	31	54	43
1983)	High	232	129	177	111	123	168	122	161	186	183	200	210

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	49 750	48 310	103
Lowest yearly mean		28 180	1973
Highest yearly mean		60 790	1982
Lowest monthly mean	8 377	7 026	Aug 1976
Highest monthly mean	126 400	225 000	Oct 1967
Lowest daily mean	7 380	5 468	7 Sep 1976
Highest daily mean	462 100	772 900	23 Mar 1968
Peak	634 700	1357 000	24 Mar 1968
10 %ile	119 600	99 920	120
50 %ile	27 340	30 350	90
95 %ile	8 098	9 658	84
Annual total (million cu m)	1573 00	1524 00	103
Annual runoff (mm)	688	667	103
Annual rainfall (mm)	1186	1146	103
[1941-70 rainfall average (mm)]		1240]	

**Factors affecting flow regime**

- Reservoir(s) in catchment
- Abstraction for public water supplies.

**Station description**  
Velocity-area station

**079006 Nith at Drumlanrig****1984**Measuring authority: SRPB  
First year: 1967Grid reference: NX 858994  
Level stn. (m OD) 52.20Catchment area (sq km): 471.0  
Max alt. (m OD): 725**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	51 460	47 530	39 170	6 722	2 277	1 298	1 076	1 314	1 345	18 320	62 600	44 230
2	99 320	99 080	23 690	5 711	2 190	1 352	0 999	0 998	2 137	14 760	47 950	36 550
3	41 340	101 500	19 620	5 357	2 118	1 751	0 959	0 990	2 343	44 290	66 260	36 460
4	22 940	144 900	42 440	4 896	2 109	2 053	0 916	0 938	2 113	49 870	52 070	27 840
5	48 810	78 310	24 980	4 667	2 074	1 635	0 899	0 893	1 498	18 460	28 270	41 280
6	38 040	80 670	19 800	4 544	1 972	1 845	0 864	0 892	1 152	11 520	20 570	27 350
7	29 650	47 340	16 040	4 545	1 912	1 680	0 825	0 958	1 019	9 576	24 250	37 600
8	18 520	47 700	11 350	4 412	1 819	1 276	0 799	0 972	0 996	14 260	49 160	28 100
9	18 430	31 520	10 190	4 344	1 722	1 102	0 767	0 899	1 998	11 090	71 750	21 220
10	40 240	62 030	8 963	4 779	1 682	1 048	0 855	0 833	2 805	8 731	61 800	16 390
11	48 960	60 970	10 210	5 651	1 571	1 022	0 878	0 782	2 623	13 510	70 980	13 470
12	105 600	44 280	10 630	4 661	1 510	1 064	0 897	0 760	2 213	9 776	59 950	11 560
13	109 900	29 470	7 918	4 425	1 468	1 352	0 859	0 762	14 390	12 080	31 720	10 010
14	40 870	21 550	6 986	4 430	1 430	1 382	0 819	0 755	12 960	11 480	23 480	9 441
15	26 160	16 360	6 251	4 005	1 405	1 196	0 795	0 749	5 293	8 343	17 520	8 529
16	24 510	15 280	5 534	3 656	1 512	1 085	0 796	0 726	3 673	6 951	13 740	7 413
17	26 710	27 710	4 954	3 595	1 609	1 076	0 809	0 714	3 345	9 128	11 490	14 110
18	21 270	20 670	4 746	8 770	1 491	1 067	0 794	0 744	2 640	86 120	9 781	14 640
19	15 320	11 760	4 503	10 960	1 392	1 035	0 753	0 750	4 156	54 330	8 417	43 250
20	13 350	9 298	4 230	8 294	1 568	1 000	0 726	0 677	7 053	106 400	7 483	66 370
21	11 700	13 000	3 958	5 720	1 557	1 043	0 702	0 646	7 053	70 190	20 720	44 440
22	9 991	19 990	3 822	4 495	1 632	1 968	0 685	0 625	36 210	70 550	26 540	31 160
23	9 340	13 720	24 370	3 884	1 466	2 170	0 680	0 623	12 940	36 900	18 240	45 180
24	9 001	15 470	44 590	3 496	1 328	2 116	0 691	0 615	7 581	55 730	18 120	56 250
25	8 479	16 070	18 670	3 194	1 366	2 725	0 665	0 611	5 465	59 570	16 000	61 850
26	8 048	12 230	14 630	2 965	1 432	2 107	0 657	0 606	4 272	34 040	17 080	28 520
27	8 156	9 812	11 700	2 826	1 345	1 895	0 681	0 614	8 123	28 480	157 400	18 690
28	20 160	8 590	10 910	2 644	1 262	1 762	0 857	0 799	39 050	35 100	48 510	16 150
29	45 650	21 200	9 275	2 397	1 207	1 380	1 616	1 733	15 130	100 000	38 030	21 800
30	38 230		8 292	2 348	1 154	1 189	1 229	1 087	27 010	65 360	38 540	19 630
31	29 900		6 818		1 110		1 373	1 001		44 630		16 180
Average	33 550	38 900	14 170	4 746	1 603	1 489	0 868	0 841	7 953	36 110	37 950	28 250
Lowest	8 048	8 590	3 822	2 348	1 110	1 000	0 657	0 606	0 996	6 951	7 483	7 413
Highest	109 900	144 900	44 590	10 960	2 277	2 725	1 616	1 733	39 050	106 400	157 400	66 370
Peak flow	413 300	201 900	96 220	12 020	2 317	3 139	1 762	2 085	70 470	191 000	337 300	112 200
Day of peak	13	4	24	19	1	25	30	29	28	29	27	24
Monthly total (million cu m)	89 86	97 46	37 95	12 30	4 29	3 86	2 33	2 25	20 61	96 72	98 36	75 66
Runoff (mm)	191	207	81	26	9	8	5	5	44	205	209	161
Rainfall (mm)	302	140	94	32	20	67	41	43	175	267	244	171

**Statistics of monthly data for previous record (Jun 1967 to Dec 1983)**

Mean flows	Avg	28 970	19 750	18 320	8 983	7 864	5 233	4 833	5 609	13 500	22 710	26 750	23 570
	Low	14 220	9 269	4 428	2 457	1 389	1 879	1 511	1 074	1 261	2 745	5 268	12 770
	(year)	1980	1979	1969	1974	1980	1978	1976	1976	1972	1972	1983	1971
	High	61 220	30 930	33 190	24 190	16 060	14 660	10 360	21 010	25 510	39 200	49 350	41 980
	(year)	1974	1970	1978	1972	1983	1972	1970	1980	1981	1967	1982	1974
Runoff	Avg	165	102	104	49	45	29	27	32	74	129	147	134
	Low	81	48	25	14	8	10	9	6	7	16	29	73
	High	348	159	189	133	91	81	59	119	140	223	272	239
Rainfall	Avg	179	111	127	69	99	86	90	89	153	178	175	153
	Low	87	32	34	11	19	52	55	23	20	66	35	69
	High	398	170	217	175	213	163	144	179	241	301	285	282

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	17 130	15 500	111
Lowest yearly mean		10 720	1971
Highest yearly mean		21 700	1982
Lowest monthly mean	0 841	1 074	Aug 1976
Highest monthly mean	38 900	61 220	Jan 1974
Lowest daily mean	0 606	0 746	28 Aug 1976
Highest daily mean	157 400	231 700	19 Dec 1982
Peak	413 300	538 400	17 Oct 1982
10 %ile	48 100	39 690	121
50 %ile	7 477	7 822	96
95 %ile	0 736	1 342	55
Annual total (million cu m)	541 70	489 10	111
Annual runoff (mm)	1150	1038	111
Annual rainfall (mm)	1596	1509	106
[1941-70 rainfall average (mm)]		1584]	

**Factors affecting flow regime**

- Reservoir(s) in catchment.
- Abstraction for public water supplies.

**Station description**

Velocity-area station

**084005 Clyde at Blairston****1984**Measuring authority: CRPB  
First year: 1958Grid reference: NS 704579  
Level stn: (m OD) 17.60Catchment area (sq km): 1704.2  
Max alt: (m OD): 732**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	163 700	99 490	56 350	32 250	11 500	11 210	7 319	8 022	8 713	30 500	80 910	91 950
2	192 600	199 100	75 990	25 910	11 380	11 140	7 071	8 438	10 830	20 000	114 400	107 800
3	134 500	232 200	49 930	23 430	11 100	10 760	6 962	7 149	9 362	30 640	295 400	76 180
4	76 640	332 100	106 300	21 050	11 150	10 820	6 887	6 869	7 795	55 380	257 600	70 780
5	144 900	271 400	69 550	19 380	11 160	10 010	6 859	6 803	7 149	28 280	104 700	75 450
6	124 500	229 700	55 820	19 350	10 800	11 330	6 876	7 045	6 454	19 060	72 660	81 330
7	104 200	141 600	48 780	19 420	10 610	11 600	6 814	6 847	6 082	16 200	71 190	147 600
8	66 790	121 200	42 980	18 940	10 380	10 230	6 651	6 644	6 876	18 100	86 270	107 300
9	54 740	89 960	38 370	17 860	10 260	8 517	6 593	6 514	8 190	21 610	164 500	78 710
10	59 930	145 000	33 920	18 210	10 260	8 093	6 456	6 349	8 610	19 800	218 900	65 300
11	158 600	137 500	39 550	22 920	10 100	7 928	7 505	6 373	7 903	31 810	105 600	53 600
12	151 500	104 800	45 080	21 660	9 997	7 980	7 713	6 015	7 239	23 030	125 000	45 420
13	281 700	78 710	35 620	19 480	9 911	8 622	7 270	5 823	14 290	32 640	83 760	40 440
14	127 800	63 870	31 800	18 600	10 630	8 616	7 035	5 699	22 340	30 010	63 120	36 330
15	88 450	53 500	26 850	18 010	9 674	8 392	6 660	5 643	16 750	23 230	51 120	32 930
16	83 170	49 800	23 650	16 860	9 869	8 227	6 562	5 694	11 930	18 400	42 870	28 780
17	88 080	59 950	21 370	15 330	10 170	8 506	6 472	5 557	10 040	17 160	38 820	38 810
18	77 420	56 910	20 640	25 820	10 100	8 166	6 385	5 564	8 931	109 000	35 300	40 710
19	60 300	43 170	19 170	42 610	9 668	8 004	6 345	5 694	8 652	80 960	30 680	94 060
20	49 880	36 520	18 150	32 250	9 824	8 041	6 225	5 613	8 704	81 830	31 030	163 000
21	46 390	37 680	17 510	22 290	9 862	8 610	6 090	5 404	10 050	75 180	38 440	107 100
22	39 860	60 070	16 730	18 540	10 440	10 250	6 068	5 123	12 950	131 800	80 020	85 580
23	45 230	50 740	28 220	16 390	10 050	10 220	5 904	4 991	19 780	73 310	59 530	107 000
24	41 590	46 020	104 100	15 470	9 817	9 534	5 956	5 058	22 370	128 800	86 240	141 500
25	38 470	49 560	98 020	14 630	10 510	8 812	5 965	5 059	15 570	167 000	72 170	102 300
26	39 220	41 950	97 060	13 680	10 010	8 484	5 916	5 062	12 000	72 970	60 110	74 530
27	39 880	35 190	67 780	13 190	9 777	7 932	6 351	5 085	12 290	51 370	274 600	52 600
28	61 520	32 000	60 050	12 890	9 411	7 685	6 578	6 178	31 850	50 430	177 000	46 030
29	106 800	31 080	49 210	12 450	8 932	7 562	6 970	6 854	35 440	108 000	94 870	55 750
30	99 620		47 300	11 900	9 020	7 378	7 093	7 340	29 970	106 300	81 050	57 850
31	83 830		39 810		8 838		8 185	7 249		104 600		49 330
Average	95 860	101 100	47 760	20 030	10 170	9 089	6 701	6 186	13 300	57 340	103 300	76 000
Lowest	38 470	31 080	16 730	11 900	8 838	7 378	5 904	4 991	6 082	16 200	30 680	28 780
Highest	281 700	332 100	106 300	42 610	11 500	11 600	8 185	8 438	35 440	167 000	295 400	163 000
Peak flow	321 000	390 100	129 800	52 330	14 500	12 620	10 760	10 060	49 610	234 900	410 800	189 600
Day of peak	13	4	4	19	14	7	12	2	29	25	4	20
Monthly total (million cu m)	256.80	253.20	127.90	51.91	27.23	23.56	17.95	16.57	34.48	153.60	267.70	203.60
Runoff (mm)	151	149	75	30	16	14	11	10	20	90	157	119
Rainfall (mm)	196	100	86	29	18	53	32	37	120	173	196	122

**Statistics of monthly data for previous record (Oct 1958 to Dec 1983)**

Mean flows	Avg	63 580	49 160	44 700	29 160	23 950	17 360	14 720	22 380	34 880	51 020	64 680	62 300
Low	11 920	8 855	14 810	10 430	8 832	8 127	8 361	7 654	7 627	8 246	16 460	16 460	26 080
(year)	1963	1963	1969	1974	1980	1981	1976	1976	1972	1972	1983	1983	1963
High	134 300	80 580	88 940	58 700	51 980	41 190	29 700	57 520	74 550	114 600	131 000	115 100	115 100
(year)	1975	1962	1979	1972	1967	1972	1965	1962	1962	1967	1982	1974	1974
Runoff	Avg	100	70	70	44	38	26	23	35	53	80	98	98
	Low	19	13	23	16	14	12	13	12	12	13	25	41
	High	211	114	140	89	82	63	47	90	113	180	199	181
Rainfall	Avg	110	73	88	65	75	74	78	94	115	121	126	112
	Low	25	23	28	9	23	43	36	24	16	33	24	38
	High	237	127	163	125	127	157	125	201	196	231	221	209

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	45 360	39 790	114
Lowest yearly mean		27 090	1973
Highest yearly mean		54 070	1982
Lowest monthly mean	6 186	7 627	Sep 1972
Highest monthly mean	103 300	134 300	Jan 1975
Lowest daily mean	4 991	4 502	11 Oct 1959
Highest daily mean	332 100	568 800	31 Oct 1977
Peak	410 800	682 400	31 Oct 1977
10 %ile	107 300	91 910	117
50 %ile	21 880	23 030	95
95 %ile	5 957	8 175	73
Annual total (million cu m)	1434.00	1256.00	114
Annual runoff (mm)	842	737	114
Annual rainfall (mm)	1162	1131	103
[1941-70 rainfall average (mm)]		1151	

**Factors affecting flow regime**

● Natural to within 10% at 95 percentile flow

**Station description**  
Velocity-area station

**085003 Falloch at Glen Falloch****1984**Measuring authority: CRPB  
First year: 1970Grid reference: NN 321197  
Level stn. (m OD) 9.50Catchment area (sq km): 80.3  
Max alt. (m OD): 1130**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	8 435	4 503	9 635	0 882	0 751	0 962	0 453	0 565	18 370	2 842	18 950	3 618
2	12 830	11 180	4 805	1 045	0 633	1 076	0 370	0 986	47 350	1 970	4 219	2 305
3	3 608	11 970	6 114	0 866	0 647	3 258	0 292	0 537	5 102	2 371	7 099	4 869
4	4 521	16 620	11 610	0 906	0 579	1 277	0 250	0 345	1 977	2 326	2 659	15 320
5	9 866	9 296	7 100	0 955	0 514	0 906	0 203	0 259	1 266	1 326	1 586	8 170
6	11 890	4 880	5 145	1 256	0 424	0 648	0 170	0 472	0 984	1 310	1 290	48 810
7	4 135	2 885	3 763	1 227	0 339	0 439	0 184	0 402	0 773	2 371	1 916	35 540
8	2 104	1 975	2 460	1 645	0 314	0 291	0 146	0 282	7 880	5 428	14 960	9 387
9	4 203	3 890	2 081	2 028	0 324	0 236	0 129	0 227	5 350	2 750	10 540	10 370
10	21 510	14 260	1 802	8 170	0 371	0 226	1 208	0 180	2 545	11 690	6 761	6 149
11	13 960	9 913	3 720	3 585	0 322	0 236	3 533	0 148	1 575	3 798	52 620	3 205
12	26 310	8 259	1 596	6 679	0 290	4 330	3 717	0 137	3 527	11 230	5 909	2 182
13	10 910	9 812	1 265	11 050	0 343	2 038	1 416	0 123	8 092	15 610	2 764	1 726
14	2 853	4 727	1 097	16 430	0 345	0 860	1 262	0 111	2 871	4 969	3 012	2 014
15	2 125	2 460	0 943	2 776	0 407	0 561	0 829	0 103	1 481	3 015	2 723	1 633
16	1 800	8 003	0 834	1 781	0 436	0 421	0 526	0 097	1 385	3 281	3 685	2 373
17	1 761	8 700	0 819	3 288	0 472	0 379	0 444	0 091	1 144	16 680	3 656	3 425
18	1 579	5 043	0 731	17 770	0 355	0 387	0 328	0 175	1 888	43 380	3 014	6 186
19	1 602	2 580	0 705	7 857	0 356	0 898	0 241	0 181	7 925	18 410	1 836	23 490
20	2 095	1 722	0 638	8 328	0 347	3 324	0 190	0 123	8 600	8 464	1 398	7 421
21	1 196	2 600	0 620	7 928	0 313	7 600	0 157	0 101	5 824	24 170	13 160	9 538
22	1 280	3 885	0 623	2 376	0 364	5 573	0 143	0 091	3 143	8 010	8 611	14 730
23	1 163	2 623	8 364	1 920	0 334	1 982	0 129	0 086	1 775	7 145	17 070	19 200
24	1 068	2 854	6 194	2 020	0 282	3 136	0 111	0 083	1 326	15 440	34 240	7 978
25	0 989	3 573	4 553	1 958	0 336	2 044	0 097	0 077	1 086	8 795	10 900	13 420
26	1 003	2 586	4 809	1 405	0 244	4 567	0 091	0 068	0 884	12 330	40 780	2 423
27	1 098	1 840	2 580	1 427	0 202	2 694	0 563	0 068	11 090	12 080	45 100	1 588
28	3 022	2 265	1 913	1 287	0 186	1 123	0 656	0 430	11 690	8 548	14 210	2 360
29	5 178	6 319	1 970	1 036	0 171	0 731	0 606	1 357	8 029	21 940	28 700	5 360
30	4 911		1 449	0 911	0 166	0 541	0 547	18 640	6 103	6 218	9 946	4 514
31	2 208		1 088		0 171		0 675	6 852		3 053		2 151
Average	5 523	5 903	3 259	4 026	0 366	1 758	0 634	1 077	6 035	9 321	12 440	9 079
Lowest	0 989	1 722	0 620	0 866	0 166	0 226	0 091	0 068	0 773	1 310	1 290	1 588
Highest	26 310	16 620	11 610	17 770	0 751	7 600	3 717	18 640	47 350	43 380	52 620	48 810
Peak flow	156 900	27 680	26 810	42 830	0 875	20 050	7 613	48 390	114 800	121 100	156 100	120 700
Day of peak	13	4	24	14	1	22	11	30	2	18	27	7
Monthly total (million cu m)	14 79	14 79	8 73	10 44	0 98	4 56	1 70	2 89	15 64	24 97	32 25	24 32
Runoff (mm)	184	184	109	130	12	57	21	36	195	311	402	303
Rainfall (mm)	440	225	115	127	19	130	83	118	264	435	485	379

**Statistics of monthly data for previous record (Oct 1970 to Dec 1983—incomplete or missing months total 0.3 years)**

Mean flows	Avg	9 545	5 340	6 033	2 726	2 770	2 590	2 318	2 963	6 787	7 199	8 947	7 715
Low	3 698	1 840	0 854	0 408	0 133	0 328	0 328	0 924	0 339	0 751	1 362	3 326	1 416
(year)	1980	1975	1975	1974	1980	1977	1983	1983	1983	1972	1974	1983	1981
High	19 630	8 387	11 360	6 325	6 422	5 609	3 495	5 289	11 210	16 050	13 830	15 650	1974
(year)	1974	1982	1979	1977	1976	1973	1980	1982	1981	1983	1978	1978	
Runoff	Avg	318	162	201	88	92	84	77	99	219	240	289	257
	Low	123	55	28	13	4	11	31	11	24	45	107	47
	High	655	253	379	204	214	181	117	176	362	535	446	522
Rainfall	Avg	370	202	248	119	141	150	157	163	312	313	370	329
	Low	172	79	100	15	20	67	66	42	40	100	117	111
	High	715	310	388	261	288	249	329	308	468	645	557	637

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	4 935	5 413	91
Lowest yearly mean		4 440	1972
Highest yearly mean		6 474	1982
Lowest monthly mean	0 366	May 0 133	May 1980
Highest monthly mean	12 440	Nov 19 630	Jan 1974
Lowest daily mean	0 068	26 Aug 0 032	12 Jul 1977
Highest daily mean	52 620	11 Nov 113 400	2 Mar 1979
Peak	156 900	13 Jan 226 700	22 Oct 1971
10 %ile	12 060	15 260	79
50 %ile	2 048	2 070	99
95 %ile	0 138	0 207	67
Annual total (million cu m)	156 10	170 80	91
Annual runoff (mm)	1943	2 127	91
Annual rainfall (mm)	2820	2874	98
[1941-70 rainfall average (mm)]		2732]	

**Factors affecting flow regime**

● Natural to within 10% at 95 percentile flow.

**Station description**

Velocity-area station. Artificial low flow control from 1975



**201005 Camowen at Camowen Terrace****1984**Measuring authority: DOEN  
First year: 1972Grid reference: IH 460730  
Level stn. (m OD) 66.00Catchment area (sq km) 274.6  
Max alt. (m OD) 539**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	10 560	48 670	6 793	3 787	1 380	1 010	0 688	0 835	1 409	2 725	6 507	9 068
2	12 520	24 580	7 632	3 315	1 371	0 995	0 639	2 936	1 856	2 449	6 112	7 243
3	9 901	17 910	6 342	3 856	1 335	2 754	0 637	3 351	1 078	2 154	4 981	13 070
4	13 670	26 610	5 880	7 629	1 299	1 874	0 636	2 262	1 199	1 792	4 749	20 640
5	23 950	42 320	5 024	5 578	1 263	1 681	0 654	1 385	0 765	1 581	3 976	18 630
6	11 430	35 850	4 581	4 457	1 227	1 449	0 664	1 183	0 666	1 407	5 935	10 940
7	12 100	22 310	4 129	3 795	1 196	1 300	0 649	1 103	0 589	1 456	9 435	7 734
8	10 200	21 450	3 846	3 349	1 175	1 088	0 654	0 988	0 609	2 789	23 400	6 959
9	8 140	12 510	3 625	3 053	1 159	0 880	0 638	0 906	0 902	2 397	10 960	6 148
10	9 279	11 220	3 460	2 887	1 077	0 910	1 032	0 802	1 430	1 988	7 016	5 351
11	15 370	10 820	4 020	2 926	1 048	0 888	2 645	0 756	1 079	2 239	14 100	4 607
12	34 030	9 273	4 823	2 655	1 005	0 884	2 567	0 746	0 961	3 379	8 544	4 192
13	27 150	7 204	6 722	2 431	0 997	1 365	1 408	0 722	1 930	4 662	6 837	4 578
14	14 540	6 531	5 527	2 578	1 130	1 351	1 171	0 730	3 602	4 917	6 570	22 330
15	10 760	5 990	4 655	2 554	1 513	1 138	1 012	0 693	1 690	3 388	5 319	8 686
16	28 480	5 606	3 861	2 394	1 427	1 035	0 924	0 657	1 339	2 857	4 572	7 785
17	18 580	5 123	3 399	2 541	1 239	0 992	0 861	0 621	2 665	4 375	4 102	12 230
18	11 710	4 815	3 158	3 310	1 136	0 948	0 748	0 746	2 203	19 930	3 937	10 450
19	9 111	16 640	2 950	3 678	1 096	0 828	0 726	0 679	1 594	8 638	3 536	13 590
20	7 745	24 550	2 957	4 059	1 064	0 828	0 703	0 550	1 821	10 140	5 241	16 270
21	32 890	27 340	3 361	3 205	1 018	0 873	0 587	0 469	4 778	7 920	15 610	9 840
22	22 030	12 060	4 007	2 612	0 920	0 890	0 565	0 449	4 665	12 190	10 910	9 423
23	12 980	8 746	46 260	2 283	0 959	1 078	0 557	0 411	4 378	7 183	7 508	17 620
24	10 670	9 902	17 690	2 029	0 929	1 181	0 501	0 425	3 718	27 830	8 081	12 080
25	9 179	7 866	13 370	1 855	1 017	0 986	0 477	0 414	2 984	12 450	6 834	12 570
26	8 601	6 633	8 308	1 763	0 927	0 817	0 443	0 434	2 175	7 420	5 809	7 794
27	10 330	5 734	7 495	1 686	0 933	0 721	0 490	0 480	3 091	7 796	14 820	6 452
28	29 490	5 237	6 680	1 617	0 865	0 708	1 019	0 588	5 574	8 755	8 803	7 132
29	24 980	5 064	5 998	1 555	0 867	0 727	1 189	0 634	4 370	12 040	6 576	11 250
30	23 340		5 090	1 459	0 926	0 711	0 845	0 438	4 579	8 558	13 400	7 138
31	17 500		4 312		0 976		0 921	0 502		6 774		6 046
Average	16 170	15 470	6 966	3 030	1 112	1 096	0 879	0 900	2 322	6 586	8 138	10 250
Lowest	7 745	4 815	2 950	1 459	0 865	0 708	0 443	0 411	0 589	1 407	3 536	4 192
Highest	34 030	48 670	46 260	7 629	1 513	2 754	2 645	3 351	5 574	27 830	23 400	22 330
Peak flow	71 710	67 930	82 760	8 655	2 107	4 021	4 754	4 276	7 485	46 000	36 950	44 940
Day of peak	13	6	24	4	16	3	12	2	28	24	9	5
Monthly total (million cu m)	43.31	38.75	18.66	7.85	2.98	2.84	2.35	2.41	6.02	17.64	21.09	27.46
Runoff (mm)	158	141	68	29	11	10	9	9	22	64	77	100
Rainfall (mm)	194	128	78	30	23	61	52	60	116	127	108	118

**Statistics of monthly data for previous record (May 1972 to Dec 1983)**

Mean flows	Avg	12 420	8 634	7 603	3 688	3 571	2 393	1 917	2 420	4 716	6 682	9 193	11 650
Low	8 859	3 320	2 504	1 377	0 751	1 053	0 965	0 846	0 873	1 197	3 421	5 295	
(year)	1979	1979	1973	1982	1980	1974	1979	1983	1972	1972	1983	1975	
High	18 070	20 480	13 200	6 779	7 954	5 051	4 698	5 551	9 655	12 990	17 540	22 470	
(year)	1978	1977	1978	1977	1972	1972	1972	1979	1978	1976	1979	1978	
Runoff	Avg	121	77	74	35	35	23	19	24	45	65	87	114
Low	86	29	24	13	7	10	9	8	8	12	32	52	
High	176	180	129	64	78	48	46	54	91	127	166	219	
Rainfall	Avg	125	81	104	53	79	68	68	80	108	106	116	125
Low	83	34	38	20	20	28	20	20	20	13	55	45	39
High	163	161	145	100	144	118	102	147	177	171	182	179	

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	6 052	6 236	97
Lowest yearly mean		4 319	1975
Highest yearly mean		8 710	1978
Lowest monthly mean	0 879	0 751	May 1980
Highest monthly mean	16 170	22 470	Dec 1978
Lowest daily mean	0 411	0 582	23 May 1980
Highest daily mean	48 670	123 300	19 Dec 1973
Peak	82 760		
10 %ile	14 120	13 840	102
50 %ile	3 364	3 511	96
95 %ile	0 599	0 911	66
Annual total (million cu m)	191.40	196.80	97
Annual runoff (mm)	697	717	97
Annual rainfall (mm)	1095	1113	98
[1941-70 rainfall average (mm)]		920]	

**Factors affecting flow regime**

- Abstraction for public water supplies
- Augmentation from effluent returns.

**Station description**

Velocity-area station with cableway, weir control

**203010 Blackwater at Maydown Bridge****1984**Measuring authority: DOEN  
First year: 1970Grid reference: IH 820519  
Level stn. (m OD) 15.00Catchment area (sq km): 951.4  
Max alt. (m OD): 362**Daily mean gauged discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	29 150	59 250	13 020	10 540	2 437	0 960	0 636	0 819	2 356	12 250	20 170	37 300
2	34 370	62 800	19 980	8 998	2 226	0 864	0 601	1 803	10 730	8 387	21 970	27 440
3	38 900	63 940	16 160	8 282	2 013	1 200	0 723	9 631	6 399	7 012	17 410	34 240
4	36 680	62 330	13 160	17 400	1 919	3 280	0 714	8 583	7 247	5 502	15 320	37 440
5	53 340	66 490	11 450	16 580	1 841	3 022	0 700	4 785	4 961	4 283	13 250	53 850
6	53 010	75 920	10 530	12 510	1 794	2 382	0 686	2 888	2 622	3 840	14 240	51 170
7	50 010	83 310	9 759	10 410	1 749	2 382	0 713	2 174	1 659	3 263	23 990	39 700
8	43 590	89 210	8 756	8 946	1 602	2 359	0 637	1 764	1 559	3 188	45 890	29 290
9	35 170	76 710	8 135	7 740	1 560	1 382	0 572	1 399	1 566	4 378	60 060	23 690
10	29 460	64 470	7 590	7 085	1 519	1 098	0 678	1 161	3 884	3 887	47 130	19 160
11	48 270	52 100	7 537	6 579	1 468	0 991	1 077	1 244	3 911	3 368	37 990	16 110
12	57 890	40 360	8 196	6 216	1 384	1 013	2 277	0 994	2 667	3 390	40 800	14 300
13	76 060	29 590	9 166	5 566	1 310	1 057	3 154	0 772	2 548	4 517	30 890	13 170
14	79 890	21 810	10 090	5 338	1 256	1 949	2 101	1 070	4 276	6 678	27 670	42 070
15	78 880	18 090	9 114	5 118	1 364	2 346	1 447	0 906	4 873	7 204	21 340	53 600
16	88 360	15 180	7 850	4 867	1 416	1 586	1 111	0 709	3 145	5 214	16 790	43 990
17	96 780	13 050	7 147	4 939	1 406	1 383	1 083	0 804	2 710	4 288	14 790	43 960
18	97 540	11 490	6 492	8 961	1 356	1 189	1 023	0 700	4 950	20 970	13 900	39 420
19	78 720	26 660	5 856	11 060	1 285	1 203	0 820	0 730	4 443	25 020	12 130	41 770
20	61 600	53 750	5 161	8 545	1 216	1 071	0 650	0 671	3 284	26 960	12 640	40 640
21	54 460	61 040	5 215	8 734	1 150	1 267	0 608	0 535	3 352	22 100	36 090	39 980
22	63 490	58 720	6 322	5 394	1 140	1 086	0 474	0 499	6 601	25 940	50 240	36 090
23	64 010	50 420	21 750	4 565	1 087	0 944	0 394	0 484	7 991	30 380	41 770	36 530
24	61 300	40 310	55 180	3 894	1 036	1 008	0 522	0 492	5 346	41 070	32 940	47 670
25	52 170	31 270	56 620	3 332	0 985	1 157	0 506	0 377	4 209	58 760	23 800	46 430
26	43 500	23 340	53 290	3 034	0 935	1 701	0 435	0 361	3 906	45 480	17 970	39 980
27	39 460	17 950	43 290	2 809	0 886	1 144	0 421	0 294	6 431	30 940	25 720	29 310
28	42 080	14 970	31 210	2 668	0 838	1 183	0 359	0 405	15 720	32 750	37 210	22 920
29	55 660	13 280	21 850	2 550	0 746	0 698	0 329	0 520	15 890	40 520	28 140	34 320
30	58 250		15 700	2 425	0 746	0 727	0 495	0 816	16 070	37 360	26 520	32 250
31	56 150		12 420		0 746		0 688	0 827		26 590		23 930
Average	56 720	44 750	16 710	7 103	1 368	1 454	0 859	1 588	5 510	17 920	27 630	35 220
Lowest	29 150	11 490	5 161	2 425	0 746	0 698	0 329	0 294	1 559	3 188	12 130	13 170
Highest	97 540	89 210	56 620	17 400	2 437	3 280	3 154	9 631	16 070	58 760	60 060	53 850
Peak flow	101 500	91 930	57 630	22 760	2 575	10 290	3 560	10 980	19 170	65 350	64 830	56 800
Day of peak	18	8	25	5	1	8	13	3	29	25	9	15
Monthly total (million cu m)	151.90	112.10	44.75	18.41	3.67	3.77	2.30	4.25	14.28	47.99	71.61	94.32
Runoff (mm)	160	118	47	19	4	4	2	4	15	50	75	99
Rainfall (mm)	185	107	55	34	26	43	49	55	87	104	100	104

**Statistics of monthly data for previous record (Oct 1970 to Dec 1983)**

Mean flows	Avg	32 540	25 640	22 140	10 950	8 681	5 886	3 208	5 174	9 008	16 700	27 710	30 170
Low	17 470	13 030	8 362	3 399	1 435	1 031	1 048	0 688	1 945	2 003	8 857	10 270	10 270
(year)	1971	1979	1973	1974	1980	1975	1975	1975	1972	1972	1983	1971	1971
High	47 630	52 550	42 850	29 050	19 810	17 480	7 328	12 880	28 200	31 960	52 220	50 660	50 660
(year)	1975	1977	1981	1972	1983	1981	1972	1979	1974	1976	1970	1978	1978
Runoff	Avg	92	66	62	30	24	16	9	15	25	47	75	85
Low	49	33	24	9	4	3	3	2	5	6	24	29	29
High	134	134	121	79	56	48	21	36	77	90	142	143	143
Rainfall	Avg	107	78	85	49	64	59	62	68	93	92	103	95
Low	64	28	33	14	19	19	17	15	9	49	38	30	30
High	146	158	142	84	124	111	115	124	153	168	146	164	164

**Summary statistics**

	For 1984	For record preceding 1984	1984 As % of pre-1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	18 010	16 450	109
Lowest yearly mean		9 954	1975
Highest yearly mean		19 740	1982
Lowest monthly mean	0 859	0 686	Aug 1975
Highest monthly mean	56 720	52 550	Feb 1977
Lowest daily mean	0 294	0 173	5 Sep 1976
Highest daily mean	97 540	101 000	5 Jan 1982
Peak	101 500	103 500	29 Apr 1981
10 %ile	53 230	43 790	122
50 %ile	7 168	9 245	78
95 %ile	0 577	0 965	60
Annual total (million cu m)	569.50	519.10	110
Annual runoff (mm)	599	546	110
Annual rainfall (mm)	949	955	99
[1941-70 rainfall average (mm)]		1005]	

**Factors affecting flow regime**

● Natural to within 10% at 95 percentile flow.

**Station description**  
Velocity-area station

**039001 Thames at Kingston/Teddington****1984**Measuring authority: TWA  
First year: 1883Grid reference: TQ 177698  
Level stn. (m OD): 5.00Catchment area (sq km): 9948.0  
Max alt. (m OD): 330**Daily mean naturalised discharges (cubic metres per second)**

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	62 500	195 000	88 300	110 000	49 500	51 100	28 700	21 700	20 500	31 400	38 700	132 000
2	77 600	197 000	85 100	123 000	49 600	77 500	28 900	23 100	21 700	30 700	38 000	116 000
3	183 000	178 000	82 100	90 700	49 900	58 600	24 400	23 900	21 300	31 800	58 400	124 000
4	164 000	158 000	71 900	86 100	50 200	66 900	27 800	36 000	24 400	34 800	54 200	140 000
5	146 000	152 000	73 400	86 500	45 600	55 800	24 500	36 800	24 900	66 100	47 800	128 000
6	105 000	164 000	68 600	86 400	44 500	61 000	28 500	27 500	23 800	57 800	54 700	175 000
7	104 000	179 000	75 400	79 800	43 800	64 400	23 300	29 300	27 900	32 700	59 500	162 000
8	97 900	183 000	71 300	79 200	47 300	61 900	24 800	27 500	22 800	24 200	72 500	119 000
9	82 800	166 000	68 000	74 400	43 400	47 200	25 200	27 800	23 200	27 700	58 900	104 000
10	79 900	145 000	67 300	73 600	44 300	45 000	23 000	26 500	23 800	30 900	72 100	98 600
11	80 900	127 000	67 500	75 000	48 600	44 300	24 600	24 100	21 600	34 000	68 000	90 800
12	90 600	125 000	102 000	73 300	46 700	40 300	26 300	23 100	19 500	28 900	56 900	86 300
13	116 000	106 000	87 700	68 700	44 200	42 800	28 000	22 700	19 100	28 100	72 800	88 300
14	135 000	109 000	78 400	65 700	44 400	37 600	29 200	22 300	28 100	28 100	96 900	98 500
15	113 000	103 000	71 000	68 300	46 200	36 300	30 100	32 200	32 300	26 100	79 500	106 000
16	130 000	103 000	70 000	66 700	41 900	34 000	25 900	30 500	25 000	24 700	73 600	147 000
17	218 000	89 500	54 800	58 600	44 700	39 400	25 300	25 800	28 000	26 400	95 400	176 000
18	165 000	90 700	58 300	52 900	45 100	48 000	30 600	25 000	35 000	27 500	78 500	127 000
19	122 000	86 700	62 400	57 300	47 500	40 900	25 900	22 900	30 100	33 900	69 600	129 000
20	99 200	82 900	60 800	57 000	47 400	38 200	25 100	24 200	70 900	37 500	68 800	145 000
21	87 200	102 000	56 800	54 600	50 500	34 500	23 500	22 100	64 700	33 500	80 900	131 000
22	101 000	138 000	58 900	53 200	95 000	36 800	25 700	23 000	54 400	31 400	160 000	116 000
23	159 000	164 000	59 900	54 900	94 800	34 400	26 300	22 300	42 300	51 200	262 000	119 000
24	226 000	125 000	187 000	54 900	69 400	34 000	26 600	23 900	35 700	57 600	271 000	138 000
25	183 000	114 000	286 000	52 800	45 300	32 000	29 300	24 600	33 300	104 000	211 000	141 000
26	222 000	91 900	278 000	51 000	105 000	34 800	23 300	24 700	31 600	51 800	195 000	161 000
27	257 000	98 100	217 000	47 300	154 000	30 800	24 900	24 800	27 700	60 500	193 000	141 000
28	236 000	94 500	206 000	44 200	113 000	30 500	22 600	22 800	29 300	41 500	184 000	135 000
29	221 000	84 900	186 000	46 100	81 400	30 100	20 900	23 200	29 900	32 900	141 000	117 000
30	209 000		129 000	49 000	76 600	28 300	20 600	20 200	32 800	34 600	140 000	114 000
31	205 000		140 000		70 900		24 900	22 000		35 900		138 000
Average	144 500	129 400	105 400	68 040	60 670	43 910	25 710	25 370	30 710	38 640	105 100	127 200
Lowest	62 500	82 900	54 800	44 200	41 900	28 300	20 600	20 200	19 100	24 200	38 000	86 300
Highest	257 000	197 000	286 000	123 000	154 000	77 500	30 600	36 800	70 900	104 000	271 000	176 000

Monthly total (million cu m)	387.00	324.20	282.40	176.40	162.50	113.80	68.85	67.95	79.59	103.50	272.40	340.70
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Naturalised runoff (mm)	39	33	28	18	16	12	7	7	8			34
Rainfall (mm)	109	42	62	5	80	73			89			

**Statistics of monthly data for previous record (Jan 1883 to Dec 1883)**

Mean naturalised flows (year)	139 300	136 600	118 300	86 890	65 780	48 390	34 580	32 070	34 160	49 860	83 980	113 900
Low (year)	32 200	25 080	27 340	24 790	18 700	13 470	10 770	9 954	11 250	15 120	17 730	22 470
High (year)	332 900	348 100	370 900	206 700	181 300	178 700	92 110	88 770	144 300	185 300	339 600	343 900
Lowest daily mean	1905	1905	1944	1976	1944	1944	1921	1976	1898	1934	1921	1921
Highest daily mean	1915	1904	1947	1951	1932	1903	1968	1931	1968	1903	1894	1929
Naturalised runoff (mm)	38	34	32	23	18	13	9	9	9	13	22	31
Low	9	6	7	6	5	4	3	3	3	4	5	6
High	90	88	100	54	49	47	25	24	38	50	88	93
Rainfall (mm)	64	49	52	48	54	52	59	64	58	72	72	72
Low	18	3	3	3	8	3	8	3	3	5	8	13
High	137	127	142	104	137	137	130	147	157	188	188	185

**Summary statistics (naturalised flows)**

	For 1984	For record preceding 1984	1984 As % of pre 1984
Mean flow (m <sup>3</sup> s <sup>-1</sup> )	75 240	78 380	96
Lowest yearly mean		30 940	1934
Highest yearly mean		135 200	1951
Lowest monthly mean	25 370	9 954	Aug 1976
Highest monthly mean	144 500	370 900	Jan 1947
Lowest daily mean	19 100	7 370	9 Jul 1934
Highest daily mean	286 000	1065 000	18 Nov 1894
10 %ile	160 100	173 000	93
50 %ile	57 340	53 020	108
95 %ile	22 860	18 220	125
Annual total (million cu m)	2379.00	2473.00	96
Annual runoff (mm)	239	249	96
Annual rainfall (mm)		716	
[1941-70 rainfall average (mm)]		723	

**Factors affecting flow regime**

- Reservoir(s) in catchment.
- Flow influenced by groundwater abstraction and/or recharge.
- Abstraction for public water supplies.
- Flow reduced by industrial and/or agricultural abstractions.
- Augmentation from surface water and/or groundwater.
- Augmentation from effluent returns.

**Station description**

Ultrasonic gauging station installed at Kingston in 1975. Earlier data derived from the Teddington gauging station - a low flow gauging weir with adjustable crest 21.3 m broad, two roller sluices each 10.7 m broad, 35 vertically lifting gates total breadth, 68.2 m, and 34 radial gates each 3.07 m broad. Naturalised flows are determined by taking account of abstractions for public water supply.

## Part (ii) – the monthly flow data

The introductory information (measuring authority etc.) is as described in Part (i).

### *Hydrometric statistics for the year*

The monthly average, peak flow, runoff and rainfall figures are equivalent to the summary information following the daily mean gauged discharges in Part (i). Because of the rounding of monthly runoff values the runoff for the year may differ slightly from the sum of the individual monthly totals.

### *Monthly and yearly statistics for previous record*

Monthly mean flows (Average, Low and High) and the monthly rainfall and runoff figures are equivalent to those presented in Part (i). Again, due to the rounding of monthly runoff values, the average runoff for the year derived from the previous record may differ slightly from the sum of the individual monthly totals. The peak flow is the highest discharge, in cubic metres per second, for each month. For many stations the archived series of monthly instantaneous maximum flows, from which the preceding record peak is abstracted, is incomplete, particularly for the earlier years, and certain of the peak flows are known to be of limited accuracy. An examination of the quality of the peak flow figures is underway and significant revision may be expected as this review proceeds. The figures are

published primarily to provide a guide to the range of river flows experienced throughout the year at the featured gauging stations.

### *Factors affecting flow regime*

Code letters are used as described in Part (i)

### *Station type*

The station type is coded by the list of abbreviations given below: two abbreviations may be applied to each station relating to the measurement of lower or higher flows.

B	Broad-crested weir
C	Crump (triangular profile) single crest weir
CB	Compound broad-crested weir. The compounding may include a mixture of types such as rectangular profiles, flumes and flat Vs and with or without divide walls
CC	Compound Crump weir
EM	Electromagnetic gauging station
EW	Essex weir (simple Crump weir modified with angled, sloping, triangular profile flanking crests) in trapezoidal channel
FL	Flume
FV	Flat V triangular profile weir
MIS	Miscellaneous method
TP	Rectangular thin-plate weir
US	Ultrasonic gauging station
VA	Velocity-area gauging station
VN	Triangular (V notch) thin-plate weir



004001 Conon at Moy Bridge

1984

Measuring authority: HRPB Grid reference: NH 482547 Catchment area (sq km): 961.8  
First year: 1953 Level stn: (m OD) 10.03 Max alt: (m OD) 1052

Hydrometric statistics for 1984

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	102 200	86 660	66 810	31 750	38 680	12 330	11 790	12 330	19 750	38 120	65 890	84 970	47 507
	(m <sup>3</sup> s <sup>-1</sup> )													
	Peak	694 00	116 40	123 40	139 70	57 78	16 10	22 90	15 58	51 21	85 42	153 10	179 30	694 00
Runoff (mm)		285	226	186	86	108	33	33	34	53	106	178	237	1564
Rainfall (mm)		301	169	139	101	30	67	52	42	187	247	193	210	1738

Monthly and yearly statistics for previous record (Oct 1947 to Dec 1983—incomplete or missing months total 5.7 years)

Mean	Avg	65 310	56 800	54 730	41 020	31 100	21 670	20 770	26 990	40 200	53 940	63 200	70 810	45 501
flows	Low	31 690	25 810	18 670	13 940	10 940	8 861	2 959	8 162	12 510	23 090	24 090	27 970	29 991
	(m <sup>3</sup> s <sup>-1</sup> )													
	High	138 300	121 000	127 900	75 730	53 050	47 560	36 700	45 140	94 870	94 030	121 700	165 100	59 238
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		409 60	467 20	362 90	203 90	237 20	165 20	247 40	254 90	223 70	324 80	411 80	1076 00	1076 00
Runoff (mm)		182	144	152	111	87	58	58	75	108	150	170	197	1493
Rainfall (mm)		188	127	145	104	107	100	104	121	161	207	216	232	1812

Factors affecting flow regime: H 1984 runoff is 105% of previous mean  
Station type: VA rainfall 96%

007002 Findhorn at Forres

1984

Measuring authority: HRPB Grid reference: NJ 018583 Catchment area (sq km): 781.9  
First year: 1958 Level stn: (m OD) 9.60 Max alt: (m OD) 941

Hydrometric statistics for 1984

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	25 920	28 660	22 110	27 400	7 593	4 098	2 743	2 642	31 150	30 480	36 480	20 410	19 974
	(m <sup>3</sup> s <sup>-1</sup> )													
	Peak	167 70	83 23	109 20	96 95	19 58	9 16	3 83	10 60	591 90	413 90	166 00	67 05	591 90
Runoff (mm)		89	92	76	91	26	14	9	9	103	104	121	70	804
Rainfall (mm)		134	76	71	29	22	49	65	41	216	158	174	93	1128

Monthly and yearly statistics for previous record (Oct 1958 to Dec 1983)

Mean	Avg	24 700	19 470	22 610	20 740	15 790	9 919	9 739	13 720	14 580	21 060	23 320	25 090	18 400
flows	Low	9 429	5 259	8 615	5 560	3 836	3 321	2 750	2 478	2 863	3 547	9 300	8 332	11 994
	(m <sup>3</sup> s <sup>-1</sup> )													
	High	51 190	44 700	54 320	54 170	41 990	41 900	24 650	58 840	37 870	49 540	39 710	61 550	25 482
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		361 10	537 70	410 00	173 50	294 30	430 20	469 10	2410 00	861 10	512 00	465 20	616 90	2410 00
Runoff (mm)		85	61	77	69	54	33	33	47	48	72	77	86	743
Rainfall (mm)		102	63	82	64	74	77	84	103	99	112	116	106	1082

Factors affecting flow regime: N 1984 runoff is 108% of previous mean  
Station type: VA rainfall 104%

009002 Deveron at Muiresk

1984

Measuring authority: NERPB Grid reference: NJ 705498 Catchment area (sq km): 954.9  
First year: 1960 Level stn: (m OD) 25.30 Max alt: (m OD) 775

Hydrometric statistics for 1984

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	26 890	32 840	32 750	20 420	7 878	5 727	4 176	3 691	9 830	16 390	56 410	27 870	20 402
	(m <sup>3</sup> s <sup>-1</sup> )													
	Peak	82 71	60 86	143 40	43 31	10 28	14 31	7 00	9 52	91 09	122 40	236 80	139 90	236 80
Runoff (mm)		75	86	92	55	22	16	12	10	27	46	153	78	672
Rainfall (mm)		137	53	127	24	21	50	67	28	135	116	209	106	1068

Monthly and yearly statistics for previous record (Oct 1960 to Dec 1983)

Mean	Avg	25 720	20 140	19 730	16 970	13 990	8 345	7 757	10 840	10 460	17 900	20 910	23 950	16 387
flows	Low	5 726	5 376	6 735	7 460	5 373	3 935	2 738	2 578	2 907	2 706	6 322	5 184	8 890
	(m <sup>3</sup> s <sup>-1</sup> )													
	High	45 260	38 800	37 190	37 990	46 250	21 770	18 950	36 380	36 540	49 480	43 210	46 390	22 792
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		214 50	135 20	187 10	131 30	506 60	254 40	272 50	422 90	322 60	332 10	305 60	244 20	506 60
Runoff (mm)		77	51	55	46	39	23	22	30	28	50	57	67	542
Rainfall (mm)		82	56	67	63	70	61	74	89	81	94	94	86	917

Factors affecting flow regime: N 1984 runoff is 124% of previous mean  
Station type: VA rainfall 116%

010002 Ugie at Inverugie

1984

Measuring authority: NERPB Grid reference: NK 101485 Catchment area (sq km): 325.0  
First year: 1971 Level stn: (m OD) 8.50 Max alt: (m OD) 234

Hydrometric statistics for 1984

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	13 270	8 205	6 835	3 668	2 012	1 660	1 147	0 887	1 355	3 106	18 350	10 780	5 940
	(m <sup>3</sup> s <sup>-1</sup> )													
	Peak	56 71	18 04	26 77	6 41	2 41	3 41	2 12	1 38	2 80	15 46	106 10	86 25	106 10
Runoff (mm)		109	63	56	29	17	13	9	7	11	26	146	89	576
Rainfall (mm)		119	43	84	19	19	56	50	14	100	103	224	118	949

Monthly and yearly statistics for previous record (Feb 1971 to Dec 1983)

Mean	Avg	7 800	6 529	5 183	3 639	2 980	2 034	1 657	1 732	2 063	4 216	5 965	8 246	4 330
flows	Low	2 285	1 999	1 593	1 245	1 542	0 913	0 903	0 764	0 791	0 869	1 942	1 473	3 003
	(m <sup>3</sup> s <sup>-1</sup> )													
	High	11 160	14 320	9 291	6 516	5 691	4 372	4 274	3 796	3 940	8 075	10 390	13 280	6 122
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		61 04	83 56	67 86	30 50	27 50	12 70	23 79	17 91	38 80	87 72	44 77	77 00	87 72
Runoff (mm)		64	49	43	29	25	16	14	14	16	35	48	68	421
Rainfall (mm)		81	46	65	48	51	52	53	59	85	86	86	81	793

Factors affecting flow regime: 1984 runoff is 137% of previous mean  
Station type: VA rainfall 120%

**011001 Don at Parkhill****1984**Measuring authority: NERPB  
First year: 1969Grid reference: NJ 887141  
Level stn. (m OD): 32.44Catchment area (sq km): 1273.0  
Max alt. (m OD): 872**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	28 940	46 090	49 590	36 190	12 540	8 403	6 651	4 713	9 355	15 320	86 420	41 560	28 814
(m <sup>3</sup> s <sup>-1</sup> )	Peak	72 46	68 49	141 90	63 96	18 64	15 51	11 53	7 20	62 16	66 76	215 90	134 70	215 90
Runoff (mm)		61	91	104	74	26	17	14	10	19	32	176	87	712
Rainfall (mm)		142	55	137	19	19	46	63	27	130	99	248	101	1086

**Monthly and yearly statistics for previous record (Dec 1969 to Dec 1983)**

Mean	Avg	31 700	28 730	26 970	23 970	17 570	11 940	10 160	11 770	10 740	21 550	20 050	29 130	20 334
flows	Low	9 453	6 846	6 587	9 317	9 558	6 773	4 335	3 346	4 194	3 631	6 542	7 951	10 622
(m <sup>3</sup> s <sup>-1</sup> )	High	49 150	52 550	48 180	47 220	35 460	24 770	21 340	42 320	18 160	60 580	35 260	57 440	27 663
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		185 90	165 10	159 80	132 30	110 70	57 00	119 30	251 20	121 20	347 20	158 50	198 30	347 20
Runoff (mm)		67	55	57	49	37	24	21	25	22	45	41	61	504
Rainfall (mm)		98	59	70	63	67	56	66	71	76	88	80	83	877

Factors affecting flow regime:  
Station type: VA1984 runoff is 141% of previous mean  
rainfall 124%**013007 North Esk at Logie Mill****1984**Measuring authority: TRPB  
First year: 1976Grid reference: NO 699640  
Level stn. (m OD): 10.60Catchment area (sq km): 730.0  
Max alt. (m OD): 939**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	23 870	36 350	38 680	34 750	8 598	4 822	2 994	2 619	4 769	12 460	91 170	33 170	24 521
(m <sup>3</sup> s <sup>-1</sup> )	Peak	76 89	88 31	169 10	102 20	19 93	22 88	4 90	7 74	28 86	96 55	462 10	187 70	482 10
Runoff (mm)		88	125	142	123	32	17	11	10	17	46	324	122	1055
Rainfall (mm)		208	74	170	13	19	54	54	24	129	128	349	119	1341

**Monthly and yearly statistics for previous record (Jan 1976 to Dec 1983)**

Mean	Avg	24 800	27 250	31 860	20 780	16 310	8 115	5 621	8 533	11 040	32 760	21 780	32 730	20 130
flows	Low	13 770	9 795	19 230	9 071	6 179	3 684	3 418	2 548	4 748	5 691	5 281	20 790	15 314
(m <sup>3</sup> s <sup>-1</sup> )	High	48 600	45 670	42 750	32 180	32 840	14 410	9 362	24 250	21 660	80 410	39 230	59 880	24 927
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		240 80	31 00	67 68	70 33	180 80	43 88	12 89	4 01	16 49	97 64	7 49	183 90	240 80
Runoff (mm)		91	91	117	74	60	29	21	31	39	120	77	120	870
Rainfall (mm)		108	92	115	56	83	60	69	75	118	154	89	138	1157

Factors affecting flow regime: NS P I  
Station type: CC1984 runoff is 121% of previous mean  
rainfall 116%**013008 South Esk at Brechin****1984**Measuring authority: TRPB  
First year: 1983Grid reference: NO 600596  
Level stn. (m OD): 18.00Catchment area (sq km): 490.0  
Max alt. (m OD): 958**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	16 430	21 550	25 730	20 690	6 529	3 576	1 712	1 403	3 598	8 922	48 150	19 130	14 785
(m <sup>3</sup> s <sup>-1</sup> )	Peak	45 81	72 40	98 91	44 39	14 46	15 19	2 70	2 96	24 35	40 81	172 00	48 23	172 00
Runoff (mm)		90	110	141	109	36	19	9	8	19	49	255	105	949
Rainfall (mm)		227	103	185	15	24	46	48	16	133	135	313	117	1362

**Monthly and yearly statistics for previous record (Jan 1983 to Dec 1983)**

Mean	Avg	22 320	9 230	16 420	11 510	24 340	11 860	3 322	2 100	3 800	9 552	3 911	17 730	11 395
flows	Low	22 320	9 230	16 420	11 510	24 340	11 860	3 322	2 100	3 800	9 552	3 911	17 730	11 397
(m <sup>3</sup> s <sup>-1</sup> )	High	22 320	9 230	16 420	11 510	24 340	11 860	3 322	2 100	3 800	9 552	3 911	17 730	11 397
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		67 60	26 23	41 75	39 67	59 07	38 20	5 24	2 70	15 49	40 94	6 27	82 82	82 82
Runoff (mm)		122	46	90	61	133	63	18	11	20	52	21	97	734
Rainfall (mm)		106	54	76	83	139	79	27	30	113	107	28	163	1005

Factors affecting flow regime: N I  
Station type: VA1984 runoff is 129% of previous mean  
rainfall 136%**014001 Eden at Kemback****1984**Measuring authority: TRPB  
First year: 1967Grid reference: NO 415158  
Level stn. (m OD): 6.20Catchment area (sq km): 307.4  
Max alt. (m OD): 522**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	8 739	9 864	7 580	3 771	2 009	1 911	1 079	0 954	1 290	3 250	14 450	7 350	5 187
(m <sup>3</sup> s <sup>-1</sup> )	Peak	30 66	30 91	54 89	9 49	3 87	5 25	1 49	1 26	1 93	13 65	30 31	14 68	54 89
Runoff (mm)		76	80	66	32	18	16	9	8	11	28	122	64	531
Rainfall (mm)		144	44	120	13	42	52	35	17	96	107	185	68	923

**Monthly and yearly statistics for previous record (Oct 1967 to Dec 1983)**

Mean	Avg	6 633	6 343	4 850	3 313	3 131	2 197	1 402	1 469	1 587	2 991	4 371	5 479	3 636
flows	Low	2 546	2 170	1 408	1 199	1 406	1 077	0 914	0 799	0 749	0 833	0 830	1 731	1 446
(m <sup>3</sup> s <sup>-1</sup> )	High	10 890	19 460	8 096	6 480	8 335	6 651	2 026	2 983	3 165	6 880	8 962	10 730	5 176
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		59 05	71 31	38 34	28 27	47 48	41 93	8 00	15 53	29 73	35 97	39 37	43 22	71 31
Runoff (mm)		58	50	42	28	27	19	12	13	13	26	37	48	373
Rainfall (mm)		80	58	60	41	68	52	55	56	73	75	72	72	762

Factors affecting flow regime: NS GEI  
Station type: VA1984 runoff is 142% of previous mean  
rainfall 121%

**016003 Ruchill Water at Cultybraggan****1984**Measuring authority TRPB  
First year: 1970Grid reference: NN 764204  
Level stn. (m OD) 62.29Catchment area (sq km) 99.5  
Max alt. (m OD) 985**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	8 338	9 659	5 603	5 040	0 645	0 993	0 239	0 164	2 569	10 180	16 550	10 370	<b>5 883</b>
(m <sup>3</sup> s <sup>-1</sup> )	Peak	105 60	36 54	17 60	17 64	1 64	8 51	0 71	0 47	33 35	136 60	141 50	71 65	<b>141 50</b>
Runoff (mm)		224	243	151	131	17	26	6	4	67	274	431	279	<b>1855</b>
Rainfall (mm)		315	153	134	60	56	65	35	36	190	329	329	216	<b>1918</b>

**Monthly and yearly statistics for previous record (Oct 1970 to Dec 1983—incomplete or missing months total 0.2 years)**

Mean	Avg	7 982	5 836	6 325	2 608	2 772	1 960	1 549	1 916	4 917	5 885	7 351	7 134	<b>4 683</b>
flows	Low	3 442	2 389	1 802	0 758	0 304	0 402	0 379	0 276	0 345	0 789	2 306	1 630	<b>3 281</b>
(m <sup>3</sup> s <sup>-1</sup> )	High	15 240	9 995	11 100	4 690	7 075	4 562	2 800	4 512	10 260	12 130	11 360	11 660	<b>6 586</b>
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		250 40	130 20	165 30	61 27	165 00	221 30	160 00	85 89	227 30	130 50	183 30	160 70	<b>250 40</b>
Runoff (mm)		215	143	170	68	75	51	42	52	128	158	191	192	<b>1485</b>
Rainfall (mm)		235	158	173	82	120	100	110	118	206	199	241	225	<b>1967</b>

Factors affecting flow regime: N  
Station type: VA1984 runoff is 125% of previous mean  
rainfall 98%**016004 Earn at Forteviot Bridge****1984**Measuring authority TRPB  
First year: 1972Grid reference: NO 043184  
Level stn. (m OD) 7.84Catchment area (sq km): 782.2  
Max alt. (m OD) 985**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	56 590	56 570	38 490	26 570	7 533	5 300	2 657	2 456	5 301	30 280	89 750	53 880	<b>31 281</b>
(m <sup>3</sup> s <sup>-1</sup> )	Peak	180 00	109 60	119 30	46 10	14 21	17 39	3 43	2 99	29 35	200 00	314 20	151 70	<b>314 20</b>
Runoff (mm)		194	181	132	88	26	18	9	8	18	104	297	184	<b>1259</b>
Rainfall (mm)		241	116	126	39	46	55	32	27	149	227	327	143	<b>1528</b>

**Monthly and yearly statistics for previous record (Oct 1972 to Dec 1983)**

Mean	Avg	46 030	36 280	36 490	17 670	14 370	10 050	6 785	7 717	19 820	29 770	40 190	41 930	<b>25 551</b>
flows	Low	25 000	16 070	12 310	8 389	4 906	4 095	3 878	3 545	6 938	5 984	15 120	15 060	<b>15 508</b>
(m <sup>3</sup> s <sup>-1</sup> )	High	85 510	58 640	58 620	28 960	33 520	20 070	11 050	16 530	36 700	59 340	70 370	64 550	<b>34 597</b>
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		277 50	214 60	194 10	104 50	155 20	114 90	65 62	95 24	271 80	235 90	328 60	219 80	<b>328 60</b>
Runoff (mm)		158	113	125	59	49	33	23	26	66	102	133	144	<b>1031</b>
Rainfall (mm)		163	104	138	50	84	71	77	89	164	143	164	160	<b>1407</b>

Factors affecting flow regime: P H  
Station type: VA1984 runoff is 122% of previous mean  
rainfall 109%**017002 Leven at Leven****1984**Measuring authority FRPB  
First year: 1970Grid reference: NO 369006  
Level stn. (m OD) 4.05Catchment area (sq km): 424.0  
Max alt. (m OD) 522**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	15 990	16 180	9 571	5 743	2 660	2 565	1 407	1 710	1 908	5 142	26 510	15 430	<b>8 735</b>
(m <sup>3</sup> s <sup>-1</sup> )	Peak	37 49	34 33	39 19	15 37	8 20	4 37	3 00	2 83	5 28	21 17	56 76	27 77	<b>56 76</b>
Runoff (mm)		101	96	60	35	17	16	9	11	12	32	162	97	<b>648</b>
Rainfall (mm)		149	60	119	21	51	53	37	31	116	144	233	92	<b>1106</b>

**Monthly and yearly statistics for previous record (Aug 1969 to Dec 1983)**

Mean	Avg	10 260	9 539	6 947	4 129	3 235	2 691	1 492	2 393	2 792	5 460	7 582	9 801	<b>5 510</b>
flows	Low	4 781	2 882	1 543	1 413	2 012	1 166	0 902	0 822	0 970	0 795	0 972	3 462	<b>2 269</b>
(m <sup>3</sup> s <sup>-1</sup> )	High	20 700	22 660	11 240	8 835	6 612	6 527	2 123	4 841	5 616	11 000	14 570	19 200	<b>7 605</b>
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		51 59	128 00	36 54	26 41	13 67	26 93	5 34	24 71	25 39	40 00	39 76	62 69	<b>128 00</b>
Runoff (mm)		65	55	44	25	20	16	9	15	17	34	46	62	<b>410</b>
Rainfall (mm)		89	61	71	45	62	62	58	66	86	84	94	89	<b>867</b>

Factors affecting flow regime: SR EI  
Station type: VA1984 runoff is 158% of previous mean  
rainfall 128%**017005 Avon at Polmonthill****1984**Measuring authority FRPB  
First year: 1972Grid reference: NS 952797  
Level stn. (m OD) 4.27Catchment area (sq km): 195.3  
Max alt. (m OD) 312**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	9 632	9 091	4 034	1 521	0 810	0 951	0 570	0 635	1 595	6 800	12 300	6 351	<b>4 524</b>
(m <sup>3</sup> s <sup>-1</sup> )	Peak	85 34	58 52	27 31	3 28	1 67	2 84	1 59	1 27	7 62	57 60	90 27	35 88	<b>90 27</b>
Runoff (mm)		132	117	55	20	11	13	8	9	21	93	163	87	<b>729</b>
Rainfall (mm)		170	90	85	19	26	62	35	43	130	165	197	94	<b>1116</b>

**Monthly and yearly statistics for previous record (Oct 1971 to Dec 1983)**

Mean	Avg	6 426	4 370	4 551	2 369	1 623	1 346	0 761	0 984	2 448	4 138	5 884	5 843	<b>3 392</b>
flows	Low	3 566	2 347	1 665	0 962	0 739	0 649	0 667	0 541	0 619	0 670	1 370	2 300	<b>2 060</b>
(m <sup>3</sup> s <sup>-1</sup> )	High	10 860	8 321	8 493	4 945	2 481	2 884	1 069	1 986	5 576	8 100	10 630	10 120	<b>4 528</b>
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		63 78	41 80	50 99	31 63	23 56	23 94	12 37	12 47	49 09	76 75	57 74	68 95	<b>76 75</b>
Runoff (mm)		88	55	62	31	22	18	10	13	32	57	78	80	<b>548</b>
Rainfall (mm)		103	60	86	47	61	60	56	71	100	100	112	105	<b>981</b>

Factors affecting flow regime: EI  
Station type: VA1984 runoff is 133% of previous mean  
rainfall 116%

**018003 Teith at Bridge of Teith****1984**Measuring authority: FRPB  
First year: 1957Grid reference: NN 725011  
Level stn. (m OD) 14.70Catchment area (sq km): 518.0  
Max alt. (m OD): 1165**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	43 420	39 620	17 770	15 930	4 997	5 005	3 780	3 136	12 080	32 960	59 340	47 720	23 813
(m <sup>3</sup> s <sup>-1</sup> )	Peak	210 60	73 39	39 14	38 33	8 04	8 43	6 76	5 32	56 74	180 30	236 80	178 90	236 80
Runoff (mm)		224	192	92	80	26	25	20	16	60	170	297	247	1449
Rainfall (mm)		331	166	102	69	25	84	37	55	199	321	381	253	2023

**Monthly and yearly statistics for previous record (Oct 1963 to Dec 1983—incomplete or missing months total 0.1 years)**

Mean	Avg	34 610	26 010	26 760	14 050	14 770	10 470	8 592	9 838	19 670	27 400	32 930	30 380	21 276
flows	Low	14 360	12 880	6 813	5 612	4 017	3 953	4 351	3 218	3 635	5 897	12 020	11 790	15 094
(m <sup>3</sup> s <sup>-1</sup> )	High	72 430	41 340	60 190	25 030	33 160	21 520	15 900	18 460	37 940	66 410	58 090	62 450	27 795
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		303 90	207 40	176 00	89 21	158 00	161 70	74 22	88 35	184 10	242 60	245 10	241 10	303 90
Runoff (mm)		179	122	138	70	76	52	44	51	98	142	165	157	1296
Rainfall (mm)		225	140	166	88	125	109	102	115	202	213	219	203	1907

Factors affecting flow regime: S P  
Station type: VA1984 runoff is 112% of previous mean  
rainfall 106%**018005 Allan Water at Bridge of Allan****1984**Measuring authority: FRPB  
First year: 1972Grid reference: NS 786980  
Level stn. (m OD) 11.20Catchment area (sq km): 210.0  
Max alt. (m OD): 633**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	15 330	16 610	7 378	4 015	1 588	1 464	0 726	0 649	1 588	8 455	17 760	9 952	7 128
(m <sup>3</sup> s <sup>-1</sup> )	Peak	84 59	56 10	39 87	10 87	5 45	6 37	0 96	0 80	7 03	76 33	70 56	40 23	84 59
Runoff (mm)		196	198	94	50	20	18	9	8	20	108	219	127	1067
Rainfall (mm)		219	99	103	32	44	57	23	28	130	230	258	123	1346

**Monthly and yearly statistics for previous record (Jul 1971 to Dec 1983)**

Mean	Avg	10 620	7 897	8 261	3 974	3 504	2 643	1 651	2 227	4 759	6 824	9 011	9 575	5 906
flows	Low	6 471	4 793	3 152	1 654	1 189	0 945	0 989	0 679	0 907	0 971	3 642	3 709	4 270
(m <sup>3</sup> s <sup>-1</sup> )	High	18 550	12 980	13 310	6 618	7 435	5 423	2 320	5 921	9 218	12 420	13 710	14 060	7 451
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		98 20	67 84	70 98	32 65	72 11	55 39	44 65	55 83	84 13	79 68	97 89	112 60	112 60
Runoff (mm)		135	92	105	49	45	33	21	28	59	87	111	122	888
Rainfall (mm)		141	90	113	56	80	72	72	80	131	125	139	141	1240

Factors affecting flow regime: N I  
Station type: VA1984 runoff is 120% of previous mean  
rainfall 109%**020001 Tyne at East Linton****1984**Measuring authority: FRPB  
First year: 1961Grid reference: NT 591768  
Level stn. (m OD) 16.50Catchment area (sq km): 307.0  
Max alt. (m OD): 528**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5 193	6 770	7 778	3 799	1 729	1 522	0 492	0 487	0 674	0 791	10 070	3 696	3 579
(m <sup>3</sup> s <sup>-1</sup> )	Peak	31 23	30 60	43 18	12 28	2 14	16 82	0 78	0 79	1 11	3 64	127 50	19 90	127 50
Runoff (mm)		45	55	68	32	15	13	4	4	5	7	85	32	366
Rainfall (mm)		106	33	120	15	33	64	34	27	72	64	182	48	798

**Monthly and yearly statistics for previous record (Jan 1961 to Dec 1983)**

Mean	Avg	4 582	3 792	3 848	2 501	2 577	1 524	1 204	1 599	1 638	2 298	3 576	3 682	2 732
flows	Low	1 032	0 783	0 531	0 644	0 926	0 586	0 500	0 468	0 461	0 451	0 524	0 582	0 709
(m <sup>3</sup> s <sup>-1</sup> )	High	11 540	8 624	8 789	6 158	11 600	6 142	4 393	9 855	6 711	7 000	11 210	8 405	4 148
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		93 02	39 39	66 17	33 39	119 70	59 12	70 18	112 70	73 34	82 71	64 81	52 02	119 70
Runoff (mm)		40	30	34	21	22	13	11	14	14	20	30	32	281
Rainfall (mm)		62	42	55	45	62	52	58	77	69	69	70	60	721

Factors affecting flow regime: EI  
Station type: VA1984 runoff is 130% of previous mean  
rainfall 111%**021006 Tweed at Boleside****1984**Measuring authority: TWRP  
First year: 1961Grid reference: NT 498334  
Level stn. (m OD) 94.50Catchment area (sq km): 1500.0  
Max alt. (m OD): 839**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	68 380	81 860	48 740	22 900	9 817	8 927	6 363	5 798	8 407	26 320	100 500	52 060	36 673
(m <sup>3</sup> s <sup>-1</sup> )	Peak	333 20	374 70	130 90	48 56	17 52	40 15	9 71	9 71	21 38	98 04	371 70	121 50	374 70
Runoff (mm)		122	137	87	40	18	15	11	10	15	47	174	93	788
Rainfall (mm)		211	86	122	21	32	67	37	39	102	137	235	106	1195

**Monthly and yearly statistics for previous record (Oct 1961 to Dec 1983)**

Mean	Avg	54 310	43 320	43 620	28 690	25 020	16 380	13 510	19 320	28 940	41 500	49 810	50 460	34 547
flows	Low	14 300	10 480	14 930	9 896	7 605	7 413	6 900	5 012	4 572	4 435	11 570	22 450	18 578
(m <sup>3</sup> s <sup>-1</sup> )	High	110 700	70 010	101 000	57 330	64 330	32 820	31 960	44 750	63 090	96 720	119 800	86 540	44 323
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		678 60	483 90	470 10	248 90	182 80	126 00	342 60	444 30	385 10	1019 00	486 30	518 10	1019 00
Runoff (mm)		97	70	78	50	45	28	24	35	50	74	86	90	727
Rainfall (mm)		119	83	97	69	88	78	83	100	121	122	123	113	1196

Factors affecting flow regime: S P  
Station type: VA1984 runoff is 106% of previous mean  
rainfall 100%



**021012 Teviot at Hawick****1984**Measuring authority: TWRP  
First year: 1963Grid reference: NT 522159  
Level stn. (m OD) 90.10Catchment area (sq km): 323.0  
Max alt. (m OD) 608**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	19 220	17 030	7 208	3 667	1 296	1 597	0 751	0 763	1 384	8 943	26 640	12 760	8 438
(m <sup>3</sup> s <sup>-1</sup> )	Peak	169 40	143.10	25.34	8.73	8.90	23.03	3.37	2.12	6.63	82.98	155.40	56.28	169.40
Runoff (mm)		159	132	60	29	11	13	6	6	11	74	214	106	822
Rainfall (mm)		199	69	92	15	32	63	41	33	89	148	245	102	1128

**Monthly and yearly statistics for previous record (Oct 1963 to Dec 1983)**

Mean	Avg	13 180	10 370	9 830	5 666	5 710	4 164	2 867	3 839	6 055	10 160	12 330	12 720	8 068
flows	Low	6 981	4 234	2 991	2 189	1 319	1 099	0 964	0 734	0 915	0 816	2 555	4 522	4 183
(m <sup>3</sup> s <sup>-1</sup> )	High	28 560	18 510	20 250	10 750	17 340	10 500	8 163	9 075	13 770	25 690	29 930	21 980	10 959
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		185.90	228.60	142.00	86.03	98.31	81.84	99.33	178.60	185.60	273.40	188.60	210.70	273.40
Runoff (mm)		109	78	82	45	47	33	24	32	49	84	99	106	788
Rainfall (mm)		111	77	99	64	91	81	80	94	110	117	121	116	1181

Factors affecting flow regime: N  
Station type: VA1984 runoff is 104% of previous mean  
rainfall 97%**021018 Lyne Water at Lyne Station****1984**Measuring authority: TWRP  
First year: 1968Grid reference: NT 209401  
Level stn. (m OD) 168.00Catchment area (sq km): 175.0  
Max alt. (m OD) 562**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	6 306	8 697	4 979	2 289	1 143	1 056	0 714	0 627	0 763	1 632	7 985	4 016	3 351
(m <sup>3</sup> s <sup>-1</sup> )	Peak	24.79	41.55	15.94	5.16	1.46	4.03	1.10	1.08	2.36	10.37	53.60	9.79	53.60
Runoff (mm)		97	125	76	34	18	16	11	10	11	25	118	61	601
Rainfall (mm)		153	80	108	22	31	59	39	33	95	116	185	84	1005

**Monthly and yearly statistics for previous record (Oct 1968 to Dec 1983)**

Mean	Avg	4 765	3 985	3 582	2 452	1 802	1 410	1 003	1 075	1 530	2 856	4 252	4 190	2 738
flows	Low	1 682	2 158	1 357	1 127	0 882	0 787	0 724	0 605	0 591	0 597	0 977	1 618	1 428
(m <sup>3</sup> s <sup>-1</sup> )	High	8 774	5 713	7 325	5 028	4 104	2 653	1 624	2 448	3 139	5 684	8 611	8 374	3 649
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		47.50	28.83	27.65	21.46	17.36	16.46	11.90	11.63	18.68	40.49	50.82	37.98	50.82
Runoff (mm)		73	55	55	36	28	21	15	16	23	44	63	64	493
Rainfall (mm)		87	58	78	51	65	62	63	68	93	95	100	83	903

Factors affecting flow regime: S P  
Station type: VA1984 runoff is 122% of previous mean  
rainfall 111%**021022 Whiteadder Water at Hutton Castle****1984**Measuring authority: TWRP  
First year: 1969Grid reference: NT 881550  
Level stn. (m OD) 29.00Catchment area (sq km): 503.0  
Max alt. (m OD) 533**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	10 160	18 810	14 950	7 258	2 519	3 010	1 480	1 479	1 329	1 498	27 680	7 339	8 128
(m <sup>3</sup> s <sup>-1</sup> )	Peak	48.04	106.60	110.20	18.61	4.10	35.74	3.08	3.15	2.85	6.18	279.80	13.98	279.80
Runoff (mm)		54	94	80	37	13	16	8	8	7	8	143	39	506
Rainfall (mm)		129	34	131	14	23	68	43	38	78	55	227	47	887

**Monthly and yearly statistics for previous record (Sep 1969 to Dec 1983)**

Mean	Avg	11 110	10 460	9 447	6 355	5 642	3 456	1 950	2 284	2 312	5 157	6 550	8 533	6 087
flows	Low	2 143	1 557	1 108	1 325	2 113	1 403	1 315	1 162	0 990	1 001	1 100	1 347	1 828
(m <sup>3</sup> s <sup>-1</sup> )	High	25 990	27 300	19 220	14 980	24 050	8 835	2 486	6 714	4 327	16 670	13 570	20 660	8 494
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		265.90	160.90	133.90	76.65	226.20	64.98	25.70	79.00	43.20	190.00	186.00	108.10	265.90
Runoff (mm)		59	51	50	33	30	18	10	12	12	27	34	45	382
Rainfall (mm)		78	56	71	48	68	57	53	62	68	74	68	72	775

Factors affecting flow regime: S P  
Station type: CC1984 runoff is 133% of previous mean  
rainfall 114%**022006 Blyth at Hartford Bridge****1984**Measuring authority: NWA  
First year: 1966Grid reference: NZ 243800  
Level stn. (m OD) 24.60Catchment area (sq km): 269.4  
Max alt. (m OD): 259**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5 325	5 132	4 288	1 277	0 319	0 312	0 096	0 127	0 269	0 245	5 735	1 802	2 078
(m <sup>3</sup> s <sup>-1</sup> )	Peak	23.96	30.22	44.42	5.23	0.50	1.69	0.24	0.73	1.75	0.99	29.46	4.73	44.42
Runoff (mm)		53	48	42	12	3	3	1	1	3	2	55	18	242
Rainfall (mm)		99	33	81	12	16	50	30	53	109	47	142	32	704

**Monthly and yearly statistics for previous record (Oct 1966 to Dec 1983—incomplete or missing months total 0.3 years)**

Mean	Avg	4 526	3 850	3 820	1 880	1 524	0 688	0 378	0 516	0 667	1 687	2 325	3 808	2 134
flows	Low	0 587	0 398	0 245	0 359	0 212	0 177	0 108	0 067	0 107	0 111	0 162	0 274	0 537
(m <sup>3</sup> s <sup>-1</sup> )	High	10 150	7 997	11 090	4 527	4 948	1 895	1 242	2 543	2 695	9 680	5 673	12 500	3 410
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		146.60	59.52	150.20	33.00	38.86	31.54	7.60	39.61	30.02	56.84	69.20	122.30	150.20
Runoff (mm)		45	35	38	18	15	7	4	5	6	17	22	38	250
Rainfall (mm)		64	47	63	42	60	54	54	64	63	63	62	66	702

Factors affecting flow regime: E  
Station type: FV1984 runoff is 97% of previous mean  
rainfall 100%

**023001 Tyne at Bywell****1984**Measuring authority: NWA  
First year: 1956Grid reference: NZ 038617  
Level stn. (m OD) 14 00Catchment area (sq km): 2175.6  
Max alt. (m OD): 893**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	102 300	94 550	48 670	18 010	7 477	14 820	6 928	9 179	22 060	45 590	130 800	48 210	45 718
(m <sup>3</sup> s <sup>-1</sup> ):	Peak	894 60	714 90	301 70	42 53	11 74	189 70	12 18	45 91	182 00	289 80	1168 00	167 50	1168 00
Runoff (mm)		126	109	60	21	9	18	9	11	26	56	156	59	660
Rainfall (mm)		152	67	93	15	26	79	34	58	123	99	204	68	1018

**Monthly and yearly statistics for previous record (Oct 1956 to Dec 1983—incomplete or missing months total 0.2 years)**

Mean	Avg.	72 140	56 720	55 910	37 590	26 360	18 310	17 840	27 910	33 640	47 110	61 710	67 310	43 509
flows	Low	19 220	14 360	20 150	8 461	7 246	4 910	5 199	3 403	4 155	4 727	18 090	23 080	25 849
(m <sup>3</sup> s <sup>-1</sup> )	High	150 800	98 140	150 900	75 620	60 650	50 010	46 230	58 070	99 450	147 200	147 000	112 000	83 834
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		1525 00	922 10	1472 00	852 30	476 30	440 30	758 90	1282 00	1189 00	1586 00	1382 00	1317 00	1586 00
Runoff (mm)		89	64	69	45	32	22	22	34	40	58	74	83	631
Rainfall (mm)		101	71	83	63	70	69	80	94	91	94	102	102	1020

Factors affecting flow regime: S  
Station type: VA1984 runoff is 105% of previous mean  
rainfall 100%**023007 Derwent at Rowlands Gill****1984**Measuring authority: NWA  
First year: 1963Grid reference: NZ 168581  
Level stn. (m OD) 29 30Catchment area (sq km): 242 1  
Max alt. (m OD): 560**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	3 481	5 395	4 312	2 422	1 116	1 148	0 864	0 905	1 036	1 008	5 024	2 147	2 405
(m <sup>3</sup> s <sup>-1</sup> ):	Peak	15 15	31 28	18 40	6 10	1 96	3 56	1 47	2 60	4 97	2 48	39 29	4 50	39 29
Runoff (mm)		39	56	48	26	12	12	10	10	11	11	54	24	312
Rainfall (mm)		127	57	83	22	33	62	19	65	104	55	179	42	848

**Monthly and yearly statistics for previous record (Nov 1962 to Dec 1983—incomplete or missing months total 0.1 years)**

Mean	Avg.	3 649	3 778	4 819	3 169	2 477	1 698	1 372	1 609	1 744	2 135	3 083	3 255	2 728
flows	Low	1 148	0 911	0 749	1 149	0 973	0 844	0 796	0 656	0 626	0 791	0 903	0 882	1 119
(m <sup>3</sup> s <sup>-1</sup> )	High	7 320	10 490	13 570	6 561	7 852	4 222	4 087	4 667	7 264	8 971	11 780	7 826	5 573
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		54 99	34 46	93 73	53 73	36 88	45 91	19 10	60 69	36 41	58 87	97 98	63 02	97 98
Runoff (mm)		40	38	53	34	27	18	15	18	19	24	33	36	356
Rainfall (mm)		79	61	75	60	66	63	60	80	74	68	85	78	849

Factors affecting flow regime: P  
Station type: CC1984 runoff is 88% of previous mean  
rainfall 100%**024004 Bedburn Beck at Bedburn****1984**Measuring authority: NWA  
First year: 1959Grid reference: NZ 118322  
Level stn. (m OD) 109 00Catchment area (sq km): 74.9  
Max alt. (m OD): 531**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	2 275	3 800	1 469	0 663	0 269	0 319	0 152	0 188	0 426	0 604	2 883	1 233	1 190
(m <sup>3</sup> s <sup>-1</sup> ):	Peak	14 67	39 16	11 12	1 50	0 33	2 39	0 19	0 73	5 07	3 23	9 13	2 35	39 16
Runoff (mm)		81	127	53	23	10	11	5	7	15	22	100	44	497
Rainfall (mm)		162	60	73	10	22	63	19	61	112	67	150	44	843

**Monthly and yearly statistics for previous record (Oct 1959 to Dec 1983—incomplete or missing months total 0.2 years)**

Mean	Avg.	2 093	1 727	1 870	1 292	0 946	0 570	0 424	0 535	0 581	1 194	1 489	1 794	1 208
flows	Low	0 515	0 472	0 436	0 440	0 271	0 196	0 177	0 120	0 157	0 146	0 245	0 444	0 667
(m <sup>3</sup> s <sup>-1</sup> )	High	4 341	4 011	5 128	2 750	2 231	1 524	1 056	1 465	1 790	4 346	3 722	4 488	1 633
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		34 67	21 59	38 51	35 09	20 62	21 66	21 92	22 99	32 30	38 06	34 26	42 93	42 93
Runoff (mm)		75	58	67	45	34	20	15	19	20	43	52	64	509
Rainfall (mm)		87	65	74	59	66	60	63	76	73	80	89	87	879

Factors affecting flow regime: N  
Station type: CC1984 runoff is 98% of previous mean  
rainfall 96%**024009 Wear at Chester le Street****1984**Measuring authority: NWA  
First year: 1977Grid reference: NZ 283512  
Level stn. (m OD) 5 50Catchment area (sq km): 1008.3  
Max alt. (m OD): 747**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	28 290	36 850	18 530	8 684	4 385	5 021	2 949	3 664	6 115	7 823	35 820	13 360	14 291
(m <sup>3</sup> s <sup>-1</sup> ):	Peak	205 60	248 20	96 23	19 88	6 59	15 95	4 58	17 13	35 29	35 74	215 20	30 99	248 20
Runoff (mm)		75	92	49	22	12	13	8	10	16	21	92	35	444
Rainfall (mm)		125	56	74	14	30	62	20	68	115	71	173	46	854

**Monthly and yearly statistics for previous record (Sep 1977 to Dec 1983)**

Mean	Avg.	23 700	21 280	30 010	15 860	12 790	8 849	5 359	5 387	5 155	11 120	16 060	27 420	15 246
flows	Low	15 780	10 210	15 010	5 489	4 627	3 945	3 780	3 335	3 777	4 834	5 022	13 230	13 296
(m <sup>3</sup> s <sup>-1</sup> )	High	40 980	37 620	64 200	30 120	30 170	14 650	9 731	9 201	7 484	26 170	26 410	50 640	19 785
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		309 80	212 70	349 60	176 70	119 80	200 60	82 95	59 19	92 94	273 40	192 80	353 10	353 10
Runoff (mm)		63	52	80	41	34	23	14	14	13	30	41	73	477
Rainfall (mm)		82	60	102	50	70	76	48	71	68	83	87	117	914

Factors affecting flow regime: G  
Station type: FV1984 runoff is 93% of previous mean  
rainfall 93%

**025006 Greta at Rutherford Bridge****1984**Measuring authority NWA  
First year 1960Grid reference NZ 034122  
Level stn (m OD) 223.00Catchment area (sq km) 86.1  
Max alt (m OD) 596**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4 022	6 030	2 597	0 471	0 164	0 469	0 092	0 600	1 616	2 697	5 624	2 362	2 229
(m <sup>3</sup> s <sup>-1</sup> )	Peak	72 32	86 63	38 15	1 14	0 27	11 49	0 14	14 38	24 71	21 19	45 63	19 52	86 63
Runoff (mm)		125	175	81	14	5	14	3	19	49	84	169	73	812
Rainfall (mm)		194	86	96	12	27	61	23	98	138	116	219	78	1148

**Monthly and yearly statistics for previous record (Oct 1960 to Dec 1983)**

Mean	Avg	3 765	2 619	3 273	2 151	1 395	0 911	0 656	1 232	1 528	2 528	3 320	3 572	2 246
flows	Low	0 291	0 280	0 842	0 375	0 148	0 130	0 095	0 098	0 147	0 195	0 951	0 944	1 447
(m <sup>3</sup> s <sup>-1</sup> )	High	7 155	6 881	8 926	4 682	3 951	2 502	2 013	4 107	4 067	6 665	6 878	6 406	2 926
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		118 00	88 63	79 00	62 01	56 35	51 74	52 83	110 40	109 00	93 85	68 81	73 77	118 00
Runoff (mm)		117	74	102	65	43	27	20	38	46	79	100	111	823
Rainfall (mm)		117	84	99	77	80	74	71	92	97	103	112	118	1124

Factors affecting flow regime:  
Station type: CC1984 runoff is 99% of previous mean  
rainfall 102%**025018 Tees at Middleton in Teesdale****1984**Measuring authority NWA  
First year 1971Grid reference NY 950250  
Level stn (m OD) 211.20Catchment area (sq km) 242.1  
Max alt (m OD) 893**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	13 350	13 070	9 473	5 590	4 296	5 319	4 273	3 611	6 537	10 140	16 760	9 313	8 478
(m <sup>3</sup> s <sup>-1</sup> )	Peak	131 30	145 00	49 55	18 90	6 27	49 46	5 68	30 22	84 98	67 84	96 45	44 11	145 00
Runoff (mm)		148	135	105	60	48	57	47	40	70	112	179	103	1104
Rainfall (mm)		244	96	112	22	39	104	38	83	182	205	281	125	1531

**Monthly and yearly statistics for previous record (Jul 1971 to Dec 1983—incomplete or missing months total 0.3 years)**

Mean	Avg	13 170	9 130	11 460	7 541	5 730	5 128	4 513	5 555	6 349	8 658	11 200	12 710	8 433
flows	Low	7 078	1 621	3 955	2 619	2 307	3 286	3 119	3 091	2 967	4 499	5 395	3 805	6 092
(m <sup>3</sup> s <sup>-1</sup> )	High	19 420	16 530	23 880	17 810	10 700	10 420	5 918	10 440	9 590	15 020	19 480	24 100	10 632
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		258 80	186 10	255 10	100 30	112 10	123 20	85 72	185 90	184 40	180 40	181 50	179 60	258 80
Runoff (mm)		146	92	127	81	63	55	50	61	68	96	120	141	1099
Rainfall (mm)		180	105	143	84	95	95	85	105	132	140	174	175	1513

Factors affecting flow regime: SR  
Station type: VA1984 runoff is 100% of previous mean  
rainfall 101%**025019 Leven at Easby****1984**Measuring authority NWA  
First year 1971Grid reference NZ 585087  
Level stn (m OD) 101.30Catchment area (sq km) 14.8  
Max alt (m OD) 335**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0 337	0 273	0 305	0 168	0 124	0 130	0 065	0 059	0 145	0 097	0 508	0 191	0 200
(m <sup>3</sup> s <sup>-1</sup> )	Peak	2 22	1 30	1 70	0 33	0 66	1 04	0 13	0 28	2 17	0 21	4 01	0 32	4 01
Runoff (mm)		61	46	55	29	22	23	12	11	25	18	89	35	426
Rainfall (mm)		103	40	88	18	59	46	30	59	127	58	141	41	810

**Monthly and yearly statistics for previous record (May 1971 to Dec 1983)**

Mean	Avg	0 312	0 313	0 302	0 219	0 192	0 133	0 112	0 120	0 123	0 185	0 182	0 283	0 206
flows	Low	0 115	0 100	0 076	0 085	0 072	0 075	0 044	0 039	0 059	0 063	0 092	0 132	0 143
(m <sup>3</sup> s <sup>-1</sup> )	High	0 630	0 729	0 821	0 402	0 545	0 239	0 189	0 365	0 532	0 556	0 324	0 543	0 305
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		3 14	4 38	4 90	4 34	7 56	1 99	3 14	3 88	12 83	3 08	3 15	7 66	12 83
Runoff (mm)		56	52	55	38	35	23	20	22	22	34	32	51	439
Rainfall (mm)		78	51	74	53	63	61	64	69	77	78	72	80	820

Factors affecting flow regime: N  
Station type: FV1984 runoff is 97% of previous mean  
rainfall 99%**025020 Skerne at Preston le Skerne****1984**Measuring authority: NWA  
First year 1972Grid reference NZ 292238  
Level stn (m OD) 67.50Catchment area (sq km) 147.0  
Max alt (m OD) 222**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2 178	1 054	0 994	0 385	0 304	0 246	0 121	0 195	0 302	0 229	1 962	0 595	0 714
(m <sup>3</sup> s <sup>-1</sup> )	Peak	14 48	3 83	10 65	0 85	0 74	0 78	0 26	1 77	2 71	1 28	9 97	1 61	14 48
Runoff (mm)		40	18	18	7	6	4	2	4	5	4	35	11	153
Rainfall (mm)		80	28	53	10	27	42	19	58	94	49	121	29	610

**Monthly and yearly statistics for previous record (Dec 1972 to Dec 1983—incomplete or missing months total 0.3 years)**

Mean	Avg	1 483	1 357	1 484	0 837	0 766	0 504	0 381	0 363	0 333	0 929	0 757	1 570	0 897
flows	Low	0 486	0 481	0 293	0 247	0 199	0 112	0 123	0 086	0 082	0 099	0 204	0 553	0 558
(m <sup>3</sup> s <sup>-1</sup> )	High	3 376	2 731	4 824	2 245	2 106	1 004	0 760	0 732	0 745	4 290	1 612	4 658	1 510
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		20 08	12 93	26 58	19 20	10 63	16 54	9 23	7 95	9 33	21 71	17 40	24 82	26 58
Runoff (mm)		27	22	27	15	14	9	7	6	6	17	13	29	192
Rainfall (mm)		58	39	58	41	55	56	46	56	63	58	53	64	647

Factors affecting flow regime: E  
Station type: VA1984 runoff is 80% of previous mean  
rainfall 94%

**026003 Foston Beck at Foston Mill****1984**Measuring authority: YWA  
First year: 1959Grid reference: TA 093548  
Level stn. (m OD):Catchment area (sq km): 57.2  
Max alt. (m OD): 164**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	0.961	1.765	1.264	0.900	0.775	0.616	0.470	0.390	0.358	0.313	0.371	0.484	0.722
(m <sup>3</sup> s <sup>-1</sup> )	Peak	1.75	1.92	1.61	1.02	1.10	0.70	0.57	0.58	0.72	0.37	0.75	0.67	1.92
Runoff (mm)		45	77	59	41	36	28	22	18	16	15	17	23	397
Rainfall (mm)		113	34	66	12	52	22	24	77	116	59	105	38	713

**Monthly and yearly statistics for previous record (Oct 1959 to Dec 1983—incomplete or missing months total 0.8 years)**

Mean	Avg	0.895	1.155	1.097	0.984	0.829	0.653	0.518	0.405	0.337	0.328	0.438	0.625	0.686
flows	Low	0.199	0.183	0.174	0.150	0.174	0.110	0.112	0.105	0.101	0.125	0.148	0.195	0.155
(m <sup>3</sup> s <sup>-1</sup> )	High	2.224	2.332	2.242	2.070	1.708	1.231	0.882	0.675	0.567	0.612	1.845	2.379	1.282
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		2.89	3.31	2.69	2.70	1.92	2.01	1.47	0.99	0.80	1.22	2.49	2.86	3.31
Runoff (mm)		42	49	51	45	39	30	24	19	15	15	20	29	378
Rainfall (mm)		70	51	56	52	54	53	56	64	59	68	74	77	734

Factors affecting flow regime: N  
Station type: TP1984 runoff is 105% of previous mean  
rainfall 97%**026004 Gypsey Race at Bridlington****1984**Measuring authority: YWA  
First year: 1971Grid reference: TA 165675  
Level stn. (m OD): 11.00Catchment area (sq km): 253.8  
Max alt. (m OD): 211**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	0.309	0.922	0.601	0.506	0.373	0.209	0.078	0.012	0.004	0.001	0.031	0.066	0.259
(m <sup>3</sup> s <sup>-1</sup> )	Peak	0.75	1.13	0.80	0.55	0.46	0.31	0.14	0.12	0.11	0.01	0.11	0.12	1.13
Runoff (mm)		3	9	6	5	4	2	1	0	0	0	0	1	32
Rainfall (mm)		124	35	71	12	49	30	21	58	132	61	106	34	733

**Monthly and yearly statistics for previous record (Jan 1971 to Dec 1983—incomplete or missing months total 2.9 years)**

Mean	Avg	0.202	0.440	0.782	0.733	0.462	0.285	0.146	0.078	0.032	0.015	0.016	0.086	0.272
flows	Low	0	0	0.005	0.010	0	0	0	0	0	0	0	0	0.002
(m <sup>3</sup> s <sup>-1</sup> )	High	0.827	2.043	2.419	2.240	1.200	0.846	0.458	0.284	0.149	0.060	0.108	0.363	0.633
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		1.36	2.56	3.51	3.19	1.56	0.98	0.66	0.43	0.21	0.13	0.17	0.62	3.51
Runoff (mm)		2	4	8	7	5	3	2	1	0	0	0	1	34
Rainfall (mm)		72	47	64	49	54	56	51	62	61	70	60	79	725

Factors affecting flow regime: G I  
Station type: C1984 runoff is 94% of previous mean  
rainfall 101%**027007 Ure at Westwick Lock****1984**Measuring authority: YWA  
First year: 1958Grid reference: SE 356671  
Level stn. (m OD): 14.19Catchment area (sq km): 914.6  
Max alt. (m OD): 713**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	48.540	48.510	20.510	8.018	3.905	5.958	2.201	2.828	13.850	26.350	46.370	24.490	20.981
(m <sup>3</sup> s <sup>-1</sup> )	Peak	223.00	260.70	107.60	15.98	5.77	62.49	2.94	16.55	141.60	126.40	173.40	86.31	260.70
Runoff (mm)		142	133	60	23	11	17	6	8	39	77	131	72	720
Rainfall (mm)		224	77	85	15	39	52	18	65	151	137	194	76	1133

**Monthly and yearly statistics for previous record (Oct 1958 to Dec 1983—incomplete or missing months total 0.4 years)**

Mean	Avg	33.020	28.430	27.450	19.790	13.360	8.940	7.823	11.140	13.690	21.770	28.720	32.200	20.498
flows	Low	4.009	3.886	10.250	5.674	3.831	3.024	2.421	1.287	1.450	5.856	7.078	11.330	12.946
(m <sup>3</sup> s <sup>-1</sup> )	High	59.590	84.770	60.330	40.980	29.500	21.400	16.180	31.600	33.030	68.480	65.010	57.370	27.066
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		537.90	307.30	413.10	263.30	170.80	161.50	144.50	260.20	296.20	266.50	288.80	283.20	537.90
Runoff (mm)		97	76	80	56	39	25	23	33	39	64	81	94	707
Rainfall (mm)		116	83	96	79	76	73	76	88	98	103	120	124	1132

Factors affecting flow regime: S P  
Station type: B VA1984 runoff is 102% of previous mean  
rainfall 100%**027030 Dearne at Adwick****1984**Measuring authority: YWA  
First year: 1963Grid reference: SE 477020  
Level stn. (m OD): 12.68Catchment area (sq km): 310.8  
Max alt. (m OD): 381**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	9.213	7.423	4.535	2.709	2.294	2.058	1.416	1.881	1.964	2.103	6.686	3.285	3.797
(m <sup>3</sup> s <sup>-1</sup> )	Peak	30.81	26.63	23.03	4.32	13.02	10.73	1.90	8.30	8.01	5.43	34.77	6.16	34.77
Runoff (mm)		79	60	39	23	20	17	12	16	16	18	56	28	385
Rainfall (mm)		134	54	56	12	53	36	11	73	92	67	124	37	749

**Monthly and yearly statistics for previous record (Nov 1963 to Dec 1983—incomplete or missing months total 0.7 years)**

Mean	Avg	4.614	5.434	5.004	3.993	3.130	2.671	1.912	1.888	1.941	2.467	3.504	4.457	3.407
flows	Low	1.946	1.648	1.433	1.223	1.303	1.106	0.807	0.765	0.873	0.922	1.029	1.245	2.104
(m <sup>3</sup> s <sup>-1</sup> )	High	7.684	14.340	10.750	8.866	7.380	7.299	3.699	3.054	5.658	5.171	7.632	10.980	5.264
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		51.76	56.32	41.85	58.42	43.97	55.58	31.94	18.07	28.97	26.56	51.52	56.65	58.42
Runoff (mm)		40	43	43	33	27	22	16	16	16	21	29	38	346
Rainfall (mm)		58	57	61	55	60	57	50	62	62	55	72	68	717

Factors affecting flow regime: GEI  
Station type: C VA1984 runoff is 111% of previous mean  
rainfall 104%



**027031 Colne at Colnebridge****1984**Measuring authority: YWA  
First year: 1964Grid reference: SE 174199  
Level stn. (m OD): 47.95Catchment area (sq km): 245.0  
Max alt. (m OD): 582**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	13 990	11 040	2 774	1 371	0 966	1 146	0 723	0 832	1 448	3 075	10 320	3 376	4 255
(m <sup>3</sup> s <sup>-1</sup> )	Peak	70 23	82 84	14 86	2 75	4 01	3 81	7 76	19 03	10 41	15 33	79 81	7 96	82 84
Runoff (mm)		153	113	30	15	11	12	8	9	15	34	109	37	545
Rainfall (mm)		212	95	67	12	53	64	21	74	146	135	192	64	1135

**Monthly and yearly statistics for previous record (Jan 1964 to Dec 1983—incomplete or missing months total 0.4 years)**

Mean	Avg	6 757	6 747	6 700	4 712	3 075	2 234	1 911	2 198	2 991	4 276	6 403	7 703	4 633
flows	Low	2 132	1 873	2 730	1 278	0 843	0 677	0 598	0 369	0 807	0 694	1 321	2 410	2 483
(m <sup>3</sup> s <sup>-1</sup> )	High	11 510	16 720	17 800	12 180	7 024	5 578	6 420	5 799	13 780	10 750	10 500	21 410	6 676
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		127 00	124 00	143 00	155 50	93 45	67 06	82 64	73 62	210 60	272 10	121 50	168 00	272 10
Runoff (mm)		74	67	73	50	34	24	21	24	32	47	68	84	597
Rainfall (mm)		107	89	105	81	81	77	74	92	105	104	130	129	1174

Factors affecting flow regime: S PG I  
Station type: C VA1984 runoff is 91% of previous mean  
rainfall 97%**027042 Dove at Kirkby Mills****1984**Measuring authority: YWA  
First year: 1972Grid reference: SE 705855  
Level stn. (m OD): 35.60Catchment area (sq km): 51.8  
Max alt. (m OD): 429**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2 286	2 023	1 659	0 871	0 478	0 418	0 248	0 221	0 635	0 644	2 032	0 886	1 034
(m <sup>3</sup> s <sup>-1</sup> )	Peak	15 46	9 11	16 59	1 65	1 02	1 09	0 89	0 98	8 15	3 24	9 65	2 28	16 59
Runoff (mm)		118	98	86	44	25	21	13	11	32	33	102	46	628
Rainfall (mm)		153	49	113	13	41	43	36	55	140	76	134	46	899

**Monthly and yearly statistics for previous record (Feb 1972 to Dec 1983)**

Mean	Avg	1 680	1 656	1 697	1 075	0 859	0 647	0 524	0 532	0 672	1 116	1 110	1 744	1 108
flows	Low	0 699	0 541	0 347	0 376	0 368	0 279	0 211	0 161	0 246	0 251	0 543	0 853	0 640
(m <sup>3</sup> s <sup>-1</sup> )	High	2 861	3 180	4 701	1 686	1 702	1 099	0 922	1 397	2 743	2 683	1 671	3 237	1 554
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		37 45	36 68	40 93	6 77	15 44	7 43	19 33	32 36	56 38	24 71	23 85	53 38	56 38
Runoff (mm)		87	78	88	54	44	32	27	28	34	58	56	90	675
Rainfall (mm)		94	64	88	57	72	66	67	70	91	94	82	104	949

Factors affecting flow regime: N  
Station type: FV1984 runoff is 93% of previous mean  
rainfall 95%**027043 Wharfe at Addingham****1984**Measuring authority: YWA  
First year: 1974Grid reference: SE 092494  
Level stn. (m OD): 79.70Catchment area (sq km): 427.0  
Max alt. (m OD): 704**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	32 380	27 860	10 020	3 385	1 623	4 303	1 245	1 886	11 670	23 170	29 580	15 720	13 570
(m <sup>3</sup> s <sup>-1</sup> )	Peak	206 40	182 70	58 84	6 38	2 90	98 99	1 84	21 96	192 20	118 70	172 10	84 77	206 40
Runoff (mm)		203	163	63	21	10	26	8	12	71	145	180	99	1000
Rainfall (mm)		253	96	80	18	36	87	22	78	178	199	212	99	1358

**Monthly and yearly statistics for previous record (Jan 1974 to Dec 1983—incomplete or missing months total 0.3 years)**

Mean	Avg	26 400	16 870	23 330	8 930	8 103	5 330	4 168	7 570	13 380	18 630	23 510	24 990	15 112
flows	Low	18 670	8 801	6 391	2 453	1 766	1 740	2 006	1 143	7 978	6 422	8 263	5 972	10 487
(m <sup>3</sup> s <sup>-1</sup> )	High	37 590	28 410	52 490	17 500	16 100	9 551	9 543	17 080	23 460	37 310	32 450	44 680	19 543
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		509 00	342 00	552 60	205 10	89 87	114 70	163 80	175 60	244 90	370 00	400 00	320 30	552 60
Runoff (mm)		166	96	146	54	51	32	26	47	81	117	143	157	1117
Rainfall (mm)		162	89	140	66	81	84	72	105	142	136	152	174	1403

Factors affecting flow regime: S P  
Station type: C VA1984 runoff is 90% of previous mean  
rainfall 97%**027059 Laver at Ripon****1984**Measuring authority: YWA  
First year: 1977Grid reference: SE 301710  
Level stn. (m OD): 29.60Catchment area (sq km): 87.5  
Max alt. (m OD): 406**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3 265	3 090	1 259	0 543	0 320	0 247	0 098	0 096	0 239	0 600	2 274	0 902	1 078
(m <sup>3</sup> s <sup>-1</sup> )	Peak	24 06	16 85	12 02	1 17	0 85	1 02	0 15	0 41	4 54	8 03	14 40	3 98	24 06
Runoff (mm)		100	88	39	16	10	7	3	3	7	18	67	28	387
Rainfall (mm)		194	65	78	11	38	38	15	46	123	101	160	58	927

**Monthly and yearly statistics for previous record (Nov 1977 to Dec 1983—incomplete or missing months total 0.2 years)**

Mean	Avg	2 060	1 583	2 326	1 107	0 894	0 714	0 279	0 379	0 310	0 752	1 225	2 305	1 161
flows	Low	1 519	0 659	1 254	0 453	0 273	0 283	0 189	0 157	0 229	0 167	0 419	0 848	1 111
(m <sup>3</sup> s <sup>-1</sup> )	High	2 863	2 289	3 850	1 843	1 881	1 264	0 480	0 841	0 462	1 506	2 400	3 786	1 139
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		23 50	15 76	22 65	15 17	11 40	16 75	6 29	11 48	10 21	13 64	15 01	39 14	39 14
Runoff (mm)		63	44	71	33	27	21	9	12	9	23	38	71	418
Rainfall (mm)		98	67	119	57	68	77	40	81	77	89	98	144	1015

\*(1978-1983)

Factors affecting flow regime: S P  
Station type: C1984 runoff is 92% of previous mean  
rainfall 91%

**027071 Swale at Crakehill****1984**Measuring authority: YWA  
First year: 1980Grid reference: SE 425734  
Level stn. (m OD) 12.00Catchment area (sq km): 1363.0  
Max alt. (m OD): 713**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	42 800	44 450	24 310	11 170	5 558	6 120	2 713	4 080	9 464	16 110	44 280	20 750	19 317
	Peak	145.30	187.90	106.70	21.78	6.60	32.80	3.32	24.88	59.51	61.36	161.40	54.39	187.90
Runoff (mm)		84	82	48	21	11	17	5	8	18	32	84	41	44.5
Rainfall (mm)		152	52	76	13	32	48	16	59	119	89	153	51	86.0

**Monthly and yearly statistics for previous record (Jun 1980 to Dec 1983)**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	38 280	19 660	38 260	21 210	17 670	14 180	7 430	8 281	9 852	24 140	25 920	32 380	21 491
flows	Low	25 210	16 470	24 240	7 819	6 468	11 790	5 399	3 684	6 442	16 180	7 541	17 470	20 292
	High	56 800	23 980	60 040	34 770	32 370	17 180	12 230	16 200	13 620	35 430	42 760	40 580	21 427
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		230.70	126.90	188.30	140.70	90.61	107.60	103.50	98.00	114.50	184.50	132.70	179.10	230.70
Runoff (mm)		75	35	75	40	35	27	15	16	19	47	49	64	49.7
Rainfall (mm)*		93	49	73	122	103	47	22	35	75	83	39	140	87.6

\*(1983 only)

Factors affecting flow regime: N  
Station type: C1984 runoff is 90% of previous mean  
rainfall 98%**028012 Trent at Yoxall****1984**Measuring authority: STWA  
First year: 1959Grid reference: SK 131177  
Level stn. (m OD) 56.40Catchment area (sq km): 1229.0  
Max alt. (m OD): 318**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	22 230	25 110	12 620	8 916	8 146	6 757	5 065	6 441	6 999	7 173	22 480	15 500	12 286
	Peak	51.45	62.07	28.02	12.00	29.31	26.09	14.89	17.43	17.50	15.04	54.30	32.01	62.07
Runoff (mm)		48	51	28	19	18	14	11	14	15	16	47	34	31.5
Rainfall (mm)		88	51	49	8	58	52	30	57	88	61	142	48	73.2

**Monthly and yearly statistics for previous record (Oct 1959 to Dec 1983—incomplete or missing months total 0.1 years)**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	17 990	17 600	14 160	11 830	10 670	9 006	9 221	9 749	10 680	11 180	12 820	17 370	12 671
flows	Low	6 268	5 886	6 640	4 950	5 258	4 827	3 611	2 482	4 874	5 621	5 898	6 474	7 404
	High	33 150	48 650	33 900	24 530	25 530	12 910	15 570	20 230	22 650	25 890	34 800	50 320	18 198
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		118.10	112.70	79.18	72.32	75.20	47.60	52.25	115.30	77.02	66.26	83.25	126.60	126.60
Runoff (mm)		39	35	31	25	23	19	20	21	23	24	27	38	32.5
Rainfall (mm)		70	54	58	56	66	61	58	70	74	63	72	76	77.8

Factors affecting flow regime: SRPGEI  
Station type: VA1984 runoff is 97% of previous mean  
rainfall 94%**028018 Dove at Marston on Dove****1984**Measuring authority: STWA  
First year: 1962Grid reference: SK 235288  
Level stn. (m OD) 47.20Catchment area (sq km): 883.2  
Max alt. (m OD): 555**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	29 520	35 380	12 710	8 097	5 742	4 862	3 487	3 534	4 552	6 089	21 540	14 180	12 474
	Peak	109.10	186.10	35.82	12.27	9.80	9.80	5.48	7.30	14.61	16.56	73.15	39.39	186.10
Runoff (mm)		90	100	39	24	17	14	11	11	13	18	63	43	44.3
Rainfall (mm)		133	76	59	9	51	57	27	68	110	75	146	58	86.9

**Monthly and yearly statistics for previous record (Oct 1961 to Dec 1983—incomplete or missing months total 0.1 years)**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	23 300	21 120	18 200	14 390	12 730	9 583	8 234	8 160	9 134	11 380	16 670	22 130	14 560
flows	Low	7 822	4 615	8 158	6 195	4 831	3 452	2 434	1 913	2 821	3 495	5 684	7 907	7 655
	High	44 930	55 910	36 570	25 620	25 800	14 700	16 940	18 130	33 270	22 830	31 070	61 200	21 755
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		187.60	194.60	129.70	100.30	121.40	71.64	117.10	101.90	113.90	128.00	130.80	202.80	202.80
Runoff (mm)		71	58	55	42	39	28	25	25	27	35	49	67	52.0
Rainfall (mm)		90	71	76	67	78	73	66	80	85	78	94	95	95.3

Factors affecting flow regime: SRPG  
Station type: FV1984 runoff is 85% of previous mean  
rainfall 91%**028024 Wreake at Syston Mill****1984**Measuring authority: STWA  
First year: 1967Grid reference: SK 615124  
Level stn. (m OD) 47.70Catchment area (sq km): 413.8  
Max alt. (m OD): 230**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	7 881	5 772	4 930	1 596	1 040	0 837	0 401	0 427	0 642	0 533	3 581		
	Peak	26.62	19.79	27.89	3.84	5.34	1.86	1.44	1.09	2.37	1.52	25.00		
Runoff (mm)		51	35	32	10	7	5	3	3	4	3	22		
Rainfall (mm)		88	40	59	11	63	40	14	51	95	49	82	39	83.1

**Monthly and yearly statistics for previous record (Aug 1967 to Dec 1983—incomplete or missing months total 1.2 years)**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	5 381	6 108	5 130	3 333	2 456	1 229	0 999	0 884	0 832	1 431	2 419	4 185	2 851
flows	Low	0 959	0 619	0 494	0 358	0 286	0 222	0 137	0 122	0 254	0 264	0 418	0 745	0 923
	High	8 176	14 460	12 630	8 772	8 077	2 776	4 547	3 230	5 367	6 897	7 087	11 850	4 396
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		39.17	50.41	99.82	97.07	51.83	39.17	26.88	30.44	21.61	31.68	50.25	52.95	99.82
Runoff (mm)		35	36	33	21	16	8	6	6	5	9	15	27	21.7
Rainfall (mm)*		50	49	55	45	54	60	44	57	57	51	47	58	62.7

\*(1971-1983)

Factors affecting flow regime: GE  
Station type: C VA1984 runoff is % of previous mean  
rainfall 101%

**028031 Manifold at Ilam****1984**Measuring authority STWA  
First year 1968Grid reference SK 140507  
Level stn (m OD) 131 00Catchment area (sq km) 148.5  
Max alt (m OD) 513**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	7 981	8 648	2 934	1 689	0 871	0 813	0 559	0 682	1 259	2 092	6 657	3 851	3 170
(m <sup>3</sup> s <sup>-1</sup> )	Peak	38 78	74 53	9 76	2 82	1 38	1 54	0 80	2 27	10 64	8 03	37 24	16 57	74 53
Runoff (mm)		144	146	53	29	16	14	10	12	27	38	116	69	670
Rainfall (mm)		169	100	65	10	48	54	28	78	138	94	147	66	997

**Monthly and yearly statistics for previous record (May 1968 to Dec 1983—incomplete or missing months total 0.1 years)**

Mean	Avg	6 298	5 388	4 919	3 575	2 613	1 835	1 519	1 720	1 826	3 001	4 972	5 287	3 571
flows	Low	3 657	2 935	2 528	1 277	0 812	0 745	0 493	0 386	0 535	0 716	1 555	2 135	2 241
(m <sup>3</sup> s <sup>-1</sup> )	High	8 522	12 710	9 455	5 828	5 713	3 443	3 481	4 577	4 147	6 697	8 198	8 741	4 808
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		80 13	54 82	49 89	43 09	52 40	39 58	37 29	137 00	45 69	75 78	91 61	66 25	137 00
Runoff (mm)		114	88	89	62	47	32	27	31	32	54	87	95	759
Rainfall (mm)*		124	92	96	74	79	76	71	73	90	91	123	111	1100

\*(1969-1983)

Factors affecting flow regime: P E  
Station type: C1984 runoff is 88% of previous mean  
rainfall 91%**028039 Rea at Calthorpe Park****1984**Measuring authority: STWA  
First year 1967Grid reference SP 071847  
Level stn (m OD) 104 24Catchment area (sq km) 74.0  
Max alt (m OD) 286**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1 263	0 835	0 697	0 338	0 492	0 546	0 334	0 562	0 821	0 578	1 753	0 823	0 753
(m <sup>3</sup> s <sup>-1</sup> )	Peak	11 83	6 43	12 16	0 95	14 90	8 31	8 45	18 25	9 85	7 03	22 57	8 45	22 57
Runoff (mm)		46	28	25	12	18	19	12	20	29	21	61	30	321
Rainfall (mm)		100	51	54	4	65	48	41	68	109	66	144	55	805

**Monthly and yearly statistics for previous record (May 1967 to Dec 1983—incomplete or missing months total 1.1 years)**

Mean	Avg	1 185	1 139	1 127	0 757	0 808	0 663	0 523	0 633	0 673	0 665	0 815	1 122	0 842
flows	Low	0 601	0 549	0 483	0 316	0 355	0 287	0 258	0 367	0 295	0 370	0 493	0 530	0 602
(m <sup>3</sup> s <sup>-1</sup> )	High	1 634	2 610	2 101	1 489	1 780	1 324	0 890	1 366	1 423	1 408	1 487	1 934	1 058
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		24 64	27 44	28 64	25 15	30 37	37 44	46 86	41 25	40 85	23 28	24 97	54 02	54 02
Runoff (mm)		43	38	41	27	29	23	19	23	24	74	29	41	359
Rainfall (mm)*		76	66	70	55	71	63	53	71	76	56	68	79	804

\*(1968-1983)

Factors affecting flow regime: E  
Station type: C1984 runoff is 90% of previous mean  
rainfall 100%**028080 Tame at Lea Marston Lakes****1984**Measuring authority: STWA  
First year 1981Grid reference SP 207937  
Level stn (m OD) 66 23Catchment area (sq km) 799.0  
Max alt (m OD) 267**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	20 640	18 320	14 340	9 391	10 560	10 750	8 482	10 650	12 430	10 520	24 110	14 580	13 731
(m <sup>3</sup> s <sup>-1</sup> )	Peak	58 86	66 01	54 35	12 79	65 57	32 24	36 23	61 18	67 09	43 59	127 60	41 44	127 60
Runoff (mm)		69	57	48	30	35	35	28	36	40	35	78	49	542
Rainfall (mm)		91	49	54	4	61	45	28	74	99	57	128	46	736

**Monthly and yearly statistics for previous record (Oct 1957 to Dec 1983—incomplete or missing months total 0.3 years)**

Mean	Avg	17 320	17 170	15 730	13 490	12 750	11 120	10 270	10 800	11 360	12 070	13 890	16 560	13 529
flows	Low	8 994	8 855	8 797	7 259	7 321	6 655	6 369	6 978	6 655	7 852	7 876	9 057	9 699
(m <sup>3</sup> s <sup>-1</sup> )	High	24 130	35 140	26 590	22 000	24 690	15 760	17 220	16 970	19 440	25 600	27 880	32 880	17 355
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		67 90	39 70	86 27	90 46	80 09	72 21	94 78	94 43	72 02	64 85	62 57	219 20	219 20
Runoff (mm)		58	52	53	44	43	36	34	36	37	40	45	56	534
Rainfall (mm)		65	52	55	53	61	57	56	70	66	58	63	72	728

Factors affecting flow regime: E1  
Station type: C1984 runoff is 101% of previous mean  
rainfall 101%**028082 Soar at Littlethorpe****1984**Measuring authority: STWA  
First year 1982Grid reference SP 542973  
Level stn (m OD) 61 39Catchment area (sq km) 183.9  
Max alt (m OD) 151**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3 327	2 835	1 415	0 834	0 680	0 700		0 382		0 500	2 025	1 474	
(m <sup>3</sup> s <sup>-1</sup> )	Peak	14 12	12 04	9 38	1 74	3 99	3 85		1 15		1 02	16 32	4 07	
Runoff (mm)		48	39	21	12	10	10		6		7	29	21	
Rainfall (mm)		89	43	59	7	54	59		45	86	51	95	38	645

Factors affecting flow regime: E  
Station type: EM

**029003 Lud at Louth****1984**Measuring authority: AWA  
First year: 1968Grid reference: TF 337879  
Level stn. (m OD) 15.42Catchment area (sq km): 55.2  
Max alt. (m OD): 159**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	0.677	1.237	0.781	0.630	0.522	0.459	0.315	0.286	0.215	0.153	0.248	0.313	0.488
(m <sup>3</sup> s <sup>-1</sup> ):	Peak	2.15	2.49	1.61	0.78	2.53	3.27	0.62	0.84	0.62	0.75	0.88	1.02	3.27
Runoff (mm)		33	56	38	30	25	22	15	14	10	7	12	15	277
Rainfall (mm)		104	48	54	16	83	43	20	51	83	42	78	45	667

**Monthly and yearly statistics for previous record (Aug 1968 to Dec 1983)**

Mean	Avg.	0.611	0.790	0.795	0.716	0.584	0.437	0.338	0.283	0.245	0.250	0.321	0.405	0.480
flows	Low	0.139	0.157	0.162	0.150	0.156	0.131	0.112	0.102	0.112	0.130	0.132	0.125	0.178
(m <sup>3</sup> s <sup>-1</sup> ):	High	1.279	1.428	1.338	1.289	1.177	0.687	0.507	0.414	0.625	0.719	1.158	0.912	0.703
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		3.68	3.81	3.58	5.06	3.51	3.23	3.40	3.10	3.30	2.96	6.77	3.10	6.77
Runoff (mm)		30	35	39	34	28	21	16	14	12	12	15	20	274
Rainfall (mm)		64	49	64	55	51	58	51	61	56	56	68	66	699

Factors affecting flow regime: PG I  
Station type: C1984 runoff is 101% of previous mean  
rainfall 95%**030004 Partney Lymn at Partney Mill****1984**Measuring authority: AWA  
First year: 1962Grid reference: TF 402676  
Level stn. (m OD) 14.95Catchment area (sq km): 61.6  
Max alt. (m OD): 142**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	1.185	1.078	0.596	0.382	0.425	0.319	0.179	0.288	0.250	0.250	0.703	0.594	0.521
(m <sup>3</sup> s <sup>-1</sup> ):	Peak	7.27	4.83	2.53	0.53	3.67	0.67	0.27	5.29	0.52	0.69	3.05	2.28	7.27
Runoff (mm)		52	44	26	16	18	13	8	13	11	11	30	26	266
Rainfall (mm)		100	52	47	16	80	38	17	74	76	48	85	46	679

**Monthly and yearly statistics for previous record (Jun 1962 to Dec 1983—incomplete or missing months total 0.4 years)**

Mean	Avg.	0.786	0.786	0.732	0.626	0.458	0.328	0.278	0.282	0.285	0.389	0.545	0.727	0.517
flows	Low	0.351	0.300	0.278	0.228	0.200	0.116	0.088	0.107	0.151	0.190	0.193	0.210	0.292
(m <sup>3</sup> s <sup>-1</sup> ):	High	1.475	1.838	1.538	1.518	0.807	0.691	0.862	0.593	0.917	1.144	1.112	1.804	0.754
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		8.44	12.59	7.71	13.34	8.56	8.13	13.38	7.06	6.64	8.07	10.17	8.48	13.38
Runoff (mm)		34	31	32	26	20	14	12	12	12	17	23	32	285
Rainfall (mm)		57	50	61	56	55	59	51	63	55	52	70	64	693

Factors affecting flow regime: G I  
Station type: C1984 runoff is 101% of previous mean  
rainfall 98%**031002 Glen at Kates Bridge (total)****1984**Measuring authority: AWA  
First year: 1960Grid reference: TF 106149  
Level stn. (m OD) 6.10Catchment area (sq km): 341.9  
Max alt. (m OD): 129**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	2.261	2.788	2.159	1.122	0.618	0.359	0.137	0.103	0.095	0.063	0.983	0.868	0.963
(m <sup>3</sup> s <sup>-1</sup> ):	Peak													
Runoff (mm)		18	20	17	9	5	3	1	1	1	1	7	7	88
Rainfall (mm)		96	37	54	11	59	28	12	50	86	44	88	37	602

**Monthly and yearly statistics for previous record (Oct 1960 to Dec 1983)**

Mean	Avg.	1.935	2.499	2.434	1.860	1.486	0.769	0.453	0.396	0.348	0.511	0.894	1.460	1.248
flows	Low	0.093	0.048	0.033	0.018	0.008	0.004	0	0.001	0.008	0.024	0.020	0.078	0.154
(m <sup>3</sup> s <sup>-1</sup> ):	High	6.351	10.110	6.317	4.936	5.060	2.182	1.465	1.615	1.873	2.267	5.552	6.988	2.336
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		15	18	19	14	12	6	4	3	3	4	7	11	115
Runoff (mm)		50	42	49	54	50	54	47	62	53	50	56	57	624
Rainfall (mm)		50	42	49	54	50	54	47	62	53	50	56	57	624

Factors affecting flow regime: G  
Station type: FV1984 runoff is 77% of previous mean  
rainfall 96%**031007 Welland at Barrowden****1984**Measuring authority: AWA  
First year: 1967Grid reference: SP 948999  
Level stn. (m OD) 34.90Catchment area (sq km): 398.9  
Max alt. (m OD): 228**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	5.765	5.450	3.878	1.323	1.021	0.634	0.372	0.364	0.407	0.458	2.091	2.742	2.042
(m <sup>3</sup> s <sup>-1</sup> ):	Peak	23.60	24.63	23.29	3.34	4.25	1.37	0.97	1.55	0.79	1.16	20.64	7.37	24.63
Runoff (mm)		39	34	26	9	7	4	3	2	3	3	14	18	161
Rainfall (mm)		84	42	56	9	58	41	22	39	76	55	91	43	616

**Monthly and yearly statistics for previous record (Feb 1968 to Dec 1983—incomplete or missing months total 0.2 years)**

Mean	Avg.	4.631	5.278	4.581	2.649	2.102	1.137	0.858	0.840	0.712	1.301	1.888	3.406	2.437
flows	Low	0.517	0.425	0.353	0.257	0.232	0.159	0.092	0.153	0.271	0.229	0.317	0.411	1.037
(m <sup>3</sup> s <sup>-1</sup> ):	High	8.949	17.030	9.687	7.899	7.311	3.095	4.468	4.501	4.329	5.150	6.430	6.528	3.667
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		36.93	74.42	107.80	79.43	46.95	27.44	38.23	39.91	12.55	22.87	50.37	40.13	107.80
Runoff (mm)		31	32	31	17	14	7	6	6	5	9	12	23	193
Rainfall (mm)		56	46	54	47	56	58	50	65	53	47	55	58	645

Factors affecting flow regime: S E  
Station type: C1984 runoff is 84% of previous mean  
rainfall 96%

**032003 Harpers Brook at Old Mill Bridge****1984**Measuring authority AWA  
First year 1938Grid reference SP 983799  
Level stn (m OD) 30.30Catchment area (sq km) 74.3  
Max alt (m OD) 146**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.993	0.774	0.614	0.224	0.174	0.137	0.084	0.083	0.091	0.090	0.380	0.487	0.344
(m <sup>3</sup> s <sup>-1</sup> )	Peak	5.60	5.56	8.28	0.58	1.32	0.38	0.13	0.42	0.53	0.56	8.79	2.68	8.79
Runoff (mm)		36	26	22	8	6	5	3	3	3	3	13	18	146
Rainfall (mm)		87	44	44	10	65	42	12	38	71	49	94	46	602

**Monthly and yearly statistics for previous record (Dec 1938 to Dec 1983—incomplete or missing months total 0.4 years)**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	0.782	0.825	0.725	0.465	0.325	0.217	0.147	0.156	0.147	0.205	0.428	0.573	0.414
flows	Low	0.097	0.080	0.076	0.065	0.056	0.048	0.053	0.048	0.049	0.057	0.069	0.077	0.159
(m <sup>3</sup> s <sup>-1</sup> )	High	2.766	2.496	2.363	1.334	1.215	1.050	0.685	0.791	1.182	0.980	1.688	1.775	0.692
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		16.06	18.58	17.01	22.00	18.65	10.54	12.49	20.50	6.80	7.73	11.74	15.81	22.00
Runoff (mm)		28	27	26	16	12	8	5	6	5	7	15	21	176
Rainfall (mm)		58	43	49	44	52	52	52	63	50	52	60	57	632

Factors affecting flow regime  
Station type CC1984 runoff is 83% of previous mean  
rainfall 95%**032004 Ise Brook at Harrowden Old Mill****1984**Measuring authority AWA  
First year 1943Grid reference SP 898715  
Level stn (m OD) 45.31Catchment area (sq km) 194.0  
Max alt (m OD) 197**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.837	3.200	1.727	0.959	0.602	0.519	0.252	0.273	0.313	0.295	1.299	1.560	1.153
(m <sup>3</sup> s <sup>-1</sup> )	Peak	10.41	13.17	7.74	1.69	3.50	4.18	0.55	2.26	3.16	2.18	10.43	2.53	13.17
Runoff (mm)		39	41	24	13	8	7	3	4	4	4	17	22	187
Rainfall (mm)		90	49	46	10	64	46	15	46	73	51	93	48	631

**Monthly and yearly statistics for previous record (Dec 1943 to Dec 1983—incomplete or missing months total 1.4 years)**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	2.467	2.674	2.359	1.527	1.172	0.764	0.585	0.554	0.509	0.747	1.380	1.933	1.383
flows	Low	0.459	0.324	0.219	0.329	0.143	0.128	0.166	0.110	0.128	0.185	0.176	0.219	0.422
(m <sup>3</sup> s <sup>-1</sup> )	High	6.441	6.949	7.984	3.834	3.640	2.471	3.018	2.655	2.283	4.384	5.331	5.859	2.337
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		17.10	17.51	28.39	20.77	17.73	24.04	19.54	25.10	7.79	13.08	16.00	16.99	28.39
Runoff (mm)		34	34	33	20	16	10	8	8	7	10	18	27	225
Rainfall (mm)		54	43	49	45	54	55	51	65	55	52	59	58	640

Factors affecting flow regime SE  
Station type FV1984 runoff is 83% of previous mean  
rainfall 99%**033003 Cam at Bottisham****1984**Measuring authority AWA  
First year 1936Grid reference TL 508657  
Level stn (m OD) 2.39Catchment area (sq km) 803.0  
Max alt (m OD) 168**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5.799	6.202	3.194	2.931	3.196	3.513	1.864	1.631	2.562	2.381	6.943	6.047	3.855
(m <sup>3</sup> s <sup>-1</sup> )	Peak													
Runoff (mm)		19	19	11	9	11	11	6	5	8	8	22	20	151
Rainfall (mm)		72	39	37	12	81	59	15	50	102	55	87	40	649

**Monthly and yearly statistics for previous record (Oct 1936 to Dec 1983—incomplete or missing months total 0.8 years)**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	5.917	6.242	5.947	4.633	3.381	2.327	1.918	1.730	1.673	2.111	3.390	4.183	3.608
flows	Low	1.058	1.202	1.142	1.159	0.944	0.490	0.621	0.471	0.784	0.803	0.880	0.995	1.062
(m <sup>3</sup> s <sup>-1</sup> )	High	19.210	16.410	19.610	18.430	8.775	5.400	6.419	5.471	6.698	6.503	12.120	12.070	8.279
Peak flow (m <sup>3</sup> s <sup>-1</sup> )														
Runoff (mm)		20	19	20	15	11	8	6	6	5	7	11	14	142
Rainfall (mm)		50	36	43	40	47	47	53	57	51	53	59	51	587

Factors affecting flow regime GEI  
Station type MIS1984 runoff is 107% of previous mean  
rainfall 111%**033004 Lark at Isleham****1984**Measuring authority AWA  
First year 1936Grid reference TL 648760  
Level stn (m OD) 2.44Catchment area (sq km) 466.2  
Max alt (m OD) 125**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.964	3.554	2.051	1.972	1.803	2.105	1.142	0.927	1.198	1.197	2.498	2.357	1.981
(m <sup>3</sup> s <sup>-1</sup> )	Peak													
Runoff (mm)		17	19	12	11	10	12	7	5	7	7	14	14	134
Rainfall (mm)		85	45	39	15	81	75	22	41	101	50	77	44	675

**Monthly and yearly statistics for previous record (Oct 1938 to Dec 1983—incomplete or missing months total 1.1 years)**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	2.579	2.907	3.001	2.423	1.907	1.294	1.143	0.960	0.894	1.063	1.577	1.934	1.801
flows	Low	0.741	0.717	0.674	0.696	0.522	0.268	0.132	0.132	0.261	0.409	0.439	0.655	0.605
(m <sup>3</sup> s <sup>-1</sup> )	High	6.137	8.107	9.613	9.502	5.208	3.764	4.430	2.359	2.324	2.620	5.002	5.326	3.850
Peak flow (m <sup>3</sup> s <sup>-1</sup> )														
Runoff (mm)		15	15	17	13	11	7	7	6	5	6	9	11	122
Rainfall (mm)		52	37	44	40	47	50	57	58	53	55	62	52	607

Factors affecting flow regime GEI  
Station type MIS1984 runoff is 110% of previous mean  
rainfall 111%



**033012 Kym at Meagre Farm****1984**Measuring authority: AWA  
First year: 1960Grid reference: TL 155631  
Level stn. (m OD) 17.22Catchment area (sq km): 137.5  
Max alt. (m OD): 101**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	1.638	1.657	0.952	0.185	0.247	0.257	0.016	0.030	0.053	0.043	0.902	0.846	0.589
(m <sup>3</sup> s <sup>-1</sup> )	Peak	12.20	16.68	8.81	0.85	2.89	5.35	0.06	0.26	0.35	0.13	16.90	2.22	16.90
Runoff (mm)		32	30	19	3	5	5	0	1	1	1	17	16	130
Rainfall (mm)		76	47	46	11	76	45	10	48	88	48	89	43	627

**Monthly and yearly statistics for previous record (May 1960 to Dec 1983—incomplete or missing months total 0.1 years)**

Mean	Avg	1.328	1.471	1.216	0.755	0.382	0.243	0.151	0.112	0.052	0.350	0.628	1.014	0.638
flows	Low	0.074	0.047	0.044	0.041	0.024	0.009	0.001	0.004	0.017	0.015	0.022	0.050	0.103
(m <sup>3</sup> s <sup>-1</sup> )	High	3.296	5.577	3.474	2.055	1.469	1.489	2.438	1.096	0.158	2.700	3.718	3.328	1.048
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		25.26	22.70	30.24	30.75	20.61	24.10	16.68	23.42	1.34	25.91	34.71	33.98	34.71
Runoff (mm)		26	26	24	14	7	5	3	2	1	7	12	20	146
Rainfall (mm)		49	40	47	48	52	58	49	56	49	51	53	56	608

Factors affecting flow regime: EI  
Station type: CB1984 runoff is 89% of previous mean  
rainfall 103%**033013 Sapiston at Rectory Bridge****1984**Measuring authority: AWA  
First year: 1960Grid reference: TL 896791  
Level stn. (m OD) 15.62Catchment area (sq km): 205.9  
Max alt. (m OD): 97**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1.582	1.769	0.937	0.736	0.703	0.650	0.338	0.255	0.355	0.362	0.991	1.069	0.812
(m <sup>3</sup> s <sup>-1</sup> )	Peak	9.63	7.19	3.31	1.27	2.82	1.78	0.49	0.39	0.39	0.67	6.04	2.55	
Runoff (mm)		21	22	12	9	9	8	4	3	4	5	12	14	124
Rainfall (mm)		92	44	40	13	71	68	28	37	97	49	76	46	656

**Monthly and yearly statistics for previous record (Jan 1960 to Dec 1983—incomplete or missing months total 0.3 years)**

Mean	Avg	1.188	1.216	1.100	0.864	0.626	0.374	0.275	0.239	0.261	0.339	0.624	0.930	0.667
flows	Low	0.267	0.221	0.244	0.251	0.193	0.133	0.065	0.045	0.051	0.066	0.087	0.139	0.219
(m <sup>3</sup> s <sup>-1</sup> )	High	2.417	3.295	2.491	1.947	1.802	0.790	0.469	0.734	1.682	1.008	2.404	2.396	1.071
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		9.93	10.90	10.85	8.76	7.31	2.24	2.39	2.93	8.95	6.76	6.97	10.45	10.90
Runoff (mm)		15	14	14	11	8	5	4	3	3	4	8	12	102
Rainfall (mm)		49	37	44	45	47	48	50	50	56	55	63	56	600

Factors affecting flow regime: GEI  
Station type: TP1984 runoff is 122% of previous mean  
rainfall 109%**033024 Cam at Dernford****1984**Measuring authority: AWA  
First year: 1963Grid reference: TL 466506  
Level stn. (m OD) 14.75Catchment area (sq km): 194.0  
Max alt. (m OD): 137**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1.536	1.548	1.157	0.955	0.939	0.918	0.675	0.493	0.562	0.698	1.237	1.296	1.001
(m <sup>3</sup> s <sup>-1</sup> )	Peak	8.18	7.03	3.60	1.25	2.86	2.26	1.16	0.78	1.13	3.23	7.50	3.43	8.18
Runoff (mm)		21	20	16	13	13	12	9	7	8	10	17	18	163
Rainfall (mm)		75	35	40	12	79	49	15	47	86	66	83	42	629

**Monthly and yearly statistics for previous record (Mar 1949 to Dec 1983—incomplete or missing months total 10.6 years)**

Mean	Avg	1.385	1.560	1.417	1.279	1.066	0.779	0.610	0.602	0.584	0.700	0.936	1.154	1.003
flows	Low	0.448	0.400	0.562	0.466	0.408	0.318	0.184	0.248	0.155	0.314	0.361	0.358	0.418
(m <sup>3</sup> s <sup>-1</sup> )	High	2.308	2.702	2.608	2.431	2.144	1.337	0.960	1.457	1.965	1.625	2.789	2.105	1.506
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		9.66	14.09	10.22	9.94	13.63	6.94	3.60	4.79	10.99	9.10	12.50	12.06	14.09
Runoff (mm)		19	20	20	17	15	10	8	8	8	10	13	16	163
Rainfall (mm)*		48	40	42	47	46	47	53	59	54	52	59	54	596

Factors affecting flow regime: GEI  
Station type: TP1984 runoff is 100% of previous mean  
rainfall 106%**034001 Yare at Colney****1984**Measuring authority: AWA  
First year: 1959Grid reference: TG 182082  
Level stn. (m OD) 8.18Catchment area (sq km): 231.8  
Max alt. (m OD): 69**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.730	2.933	1.507	1.129	0.916	1.023	0.433	0.442	0.783	0.765	1.686	1.978	1.360
(m <sup>3</sup> s <sup>-1</sup> )	Peak	7.78	6.69	2.35	1.89	2.84	2.66	0.56	0.91	2.76	1.28	6.57	3.71	7.78
Runoff (mm)		32	32	17	13	11	11	5	5	9	9	19	23	185
Rainfall (mm)		98	39	44	14	61	70	36	48	91	48	72	45	666

**Monthly and yearly statistics for previous record (Oct 1959 to Dec 1983)**

Mean	Avg	2.590	2.659	2.098	1.741	1.138	0.679	0.575	0.556	0.684	0.912	1.507	2.217	1.441
flows	Low	0.779	0.947	0.842	0.623	0.462	0.285	0.189	0.200	0.272	0.330	0.440	0.714	0.770
(m <sup>3</sup> s <sup>-1</sup> )	High	5.181	4.931	4.783	3.442	2.487	1.267	1.041	1.607	3.420	2.898	3.971	5.905	2.230
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		18.97	18.63	16.90	20.51	10.10	3.46	4.54	6.34	21.61	7.48	11.20	21.15	21.61
Runoff (mm)		30	28	24	19	13	8	7	6	8	11	17	26	196
Rainfall (mm)		56	44	46	49	48	48	54	56	56	60	70	64	651

Factors affecting flow regime: GI  
Station type: MIS1984 runoff is 94% of previous mean  
rainfall 102%

**034002 Tas at Shotesham****1984**Measuring authority: AWA  
First year: 1957Grid reference: TM 226994  
Level stn (m OD): 9.60Catchment area (sq km): 146.5  
Max alt (m OD): 65**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1.759	0.905	0.386	0.375	0.460	0.436	0.266	0.229	0.283	0.317	0.845	0.854	0.593
(m <sup>3</sup> s <sup>-1</sup> )	Peak	7.94	3.09	0.97	0.85	1.42	1.17	0.01	0.54	0.78	0.75	5.24	2.29	7.94
Runoff (mm)		32	15	7	7	8	8	5	4	5	6	15	16	128
Rainfall (mm)		93	37	45	15	62	49	37	33	88	50	71	53	633

**Monthly and yearly statistics for previous record (Nov 1957 to Dec 1983—incomplete or missing months total 0.7 years)**

Mean	Avg	1.476	1.414	1.037	0.788	0.539	0.374	0.343	0.301	0.426	0.477	0.802	1.182	0.760
flows	Low	0.287	0.368	0.302	0.309	0.219	0.175	0.120	0.126	0.158	0.183	0.229	0.300	0.280
(m <sup>3</sup> s <sup>-1</sup> )	High	3.107	3.709	2.435	1.666	1.539	0.830	0.962	0.764	3.425	1.422	2.946	3.239	1.299
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		14.16	13.58	11.53	5.69	6.65	6.80	6.51	3.57	62.30	7.84	11.31	13.31	62.30
Runoff (mm)		27	23	19	14	10	7	6	6	8	9	14	22	164
Rainfall (mm)		53	41	41	45	47	47	51	54	54	56	64	60	613

Factors affecting flow regime: G I  
Station type: FV1984 runoff is 78% of previous mean  
rainfall 103%**034018 Stiffkey at Warham All Saints****1984**Measuring authority: AWA  
First year: 1972Grid reference: TF 944414  
Level stn (m OD): 5.30Catchment area (sq km): 77.1  
Max alt (m OD): 95**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.735	0.861	0.737	0.583	0.604	0.657	0.321	0.294	0.396	0.351	0.592	0.609	0.562
(m <sup>3</sup> s <sup>-1</sup> )	Peak	2.07	1.88	1.32	0.92	2.56	2.09	0.80	0.64	0.79	0.45	2.54	0.97	2.56
Runoff (mm)		26	28	26	20	21	22	11	10	13	12	20	21	230
Rainfall (mm)		95	38	59	20	94	52	39	47	118	35	71	41	709

**Monthly and yearly statistics for previous record (Jan 1976 to Dec 1983—incomplete or missing months total 0.4 years)**

Mean	Avg	0.777	0.921	0.763	0.694	0.544	0.417	0.424	0.396	0.271	0.373	0.444	0.613	0.551
flows	Low	0.577	0.454	0.353	0.286	0.227	0.125	0.059	0.083	0.206	0.245	0.285	0.430	0.335
(m <sup>3</sup> s <sup>-1</sup> )	High	1.310	2.186	1.228	1.416	0.912	0.617	1.216	0.984	0.339	0.633	0.712	0.864	0.718
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		5.47	12.49	4.90	10.55	1.55	1.59	5.76	3.29	0.84	2.25	1.77	2.72	12.49
Runoff (mm)		27	29	26	23	19	14	15	14	9	13	15	21	225
Rainfall (mm)		62	49	62	48	57	49	44	64	52	64	60	68	674

Factors affecting flow regime: G I  
Station type: FV1984 runoff is 102% of previous mean  
rainfall 105%**035002 Deben at Naunton Hall****1984**Measuring authority: AWA  
First year: 1964Grid reference: TM 322534  
Level stn (m OD): 5.49Catchment area (sq km): 163.1  
Max alt (m OD): 62**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.083	1.754	1.062	0.568	0.404	0.320	0.123	0.118	0.198	0.339	1.009	1.686	0.805
(m <sup>3</sup> s <sup>-1</sup> )	Peak	14.25	8.93	6.78	2.93	4.09	1.89	0.23	0.26	1.00	2.23	8.22	7.57	14.25
Runoff (mm)		34	27	17	9	7	5	2	2	3	6	16	28	156
Rainfall (mm)		90	44	51	17	65	36	30	28	86	60	61	52	620

**Monthly and yearly statistics for previous record (Aug 1964 to Dec 1983—incomplete or missing months total 0.8 years)**

Mean	Avg	1.676	1.523	1.087	0.757	0.424	0.192	0.166	0.166	0.335	0.397	0.924	1.284	0.740
flows	Low	0.259	0.247	0.228	0.176	0.107	0.057	0.044	0.054	0.076	0.139	0.173	0.192	0.545
(m <sup>3</sup> s <sup>-1</sup> )	High	2.894	4.252	3.366	2.162	1.148	0.326	0.405	0.484	2.825	1.222	3.113	3.585	1.080
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		17.78	16.71	14.80	16.10	12.80	1.50	3.39	2.61	29.45	8.24	16.86	16.11	29.45
Runoff (mm)		28	23	18	12	7	3	3	3	5	7	15	21	143
Rainfall (mm)		52	40	43	43	44	44	47	44	58	50	65	55	585

Factors affecting flow regime: R G I  
Station type: CC1984 runoff is 109% of previous mean  
rainfall 106%**037001 Roding at Redbridge****1984**Measuring authority: TWA  
First year: 1950Grid reference: TQ 415884  
Level stn (m OD): 5.72Catchment area (sq km): 303.3  
Max alt (m OD): 117**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4.218	2.976	2.381	1.120	1.273	0.811	0.400	0.408	0.978	1.325	4.032	4.308	2.019
(m <sup>3</sup> s <sup>-1</sup> )	Peak	16.20	9.43	13.20	3.44	7.50	3.08	3.19	2.22	9.84	13.90	18.30	14.10	18.30
Runoff (mm)		37	25	21	10	11	7	4	4	8	12	34	38	210
Rainfall (mm)		87	30	49	8	74	35	22	31	98	73	80	54	636

**Monthly and yearly statistics for previous record (Feb 1950 to Dec 1983)**

Mean	Avg	3.658	3.581	2.796	1.879	1.280	0.835	0.597	0.604	0.885	1.315	2.157	2.929	1.868
flows	Low	0.675	0.608	0.537	0.482	0.323	0.226	0.280	0.224	0.197	0.283	0.412	0.412	0.801
(m <sup>3</sup> s <sup>-1</sup> )	High	7.282	10.670	6.858	6.768	4.045	2.953	1.975	1.315	4.012	6.834	10.340	9.454	2.809
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		34.74	30.80	38.08	27.72	32.70	21.70	24.50	19.81	25.62	35.60	62.41	36.40	62.41
Runoff (mm)		32	29	25	16	11	7	5	5	8	12	18	26	194
Rainfall (mm)		50	43	46	44	49	51	51	56	60	55	63	57	625

Factors affecting flow regime: S E I  
Station type: EW1984 runoff is 108% of previous mean  
rainfall 102%

**037005 Colne at Lexden****1984**Measuring authority: AWA  
First year: 1959Grid reference: TL 962261  
Level stn. (m OD) 8.23Catchment area (sq km): 238.2  
Max alt. (m OD): 114**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.427	2.068	1.066	0.744	0.623	0.508	0.271	0.247	0.425	0.639	1.469	1.871	1.030
(m <sup>3</sup> s <sup>-1</sup> )	Peak	13.13	10.50	4.28	1.72	3.44	2.65	0.96	0.58	2.42	5.46	8.07	6.26	13.13
Runoff (mm)		27	22	12	8	7	6	3	3	5	7	16	21	136
Rainfall (mm)		81	34	42	10	64	50	27	37	90	69	68	49	621

**Monthly and yearly statistics for previous record (Oct 1959 to Dec 1983)**

Mean	Avg	1.933	1.831	1.711	1.210	0.830	0.441	0.343	0.323	0.382	0.659	1.159	1.543	1.027
flows	Low	0.460	0.346	0.380	0.358	0.229	0.146	0.100	0.095	0.179	0.221	0.288	0.352	0.362
(m <sup>3</sup> s <sup>-1</sup> )	High	3.737	4.640	3.671	3.344	2.353	0.857	0.687	0.554	1.098	3.930	5.521	4.200	1.732
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		13.92	22.02	23.80	13.34	12.56	6.26	4.00	2.38	10.50	9.77	20.34	20.58	23.80
Runoff (mm)		22	19	19	13	9	5	4	4	4	7	13	17	136
Rainfall (mm)		46	35	44	43	45	43	45	48	53	52	60	55	569

Factors affecting flow regime: R EI  
Station type: FL1984 runoff is 100% of previous mean  
rainfall 109%**037010 Blackwater at Appleford Bridge****1984**Measuring authority: AWA  
First year: 1962Grid reference: TL 845158  
Level stn. (m OD) 14.55Catchment area (sq km): 247.3  
Max alt. (m OD): 127**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.202	1.926	1.221	0.847	0.743	0.671	0.666	0.490	0.506	0.740	1.724	2.039	1.148
(m <sup>3</sup> s <sup>-1</sup> )	Peak	10.67	8.73	4.00	1.95	2.28	1.78	1.64	1.31	2.78	5.74	7.17	7.53	10.67
Runoff (mm)		24	20	13	9	8	7	7	5	5	8	18	22	147
Rainfall (mm)		78	32	42	10	69	54	27	44	87	64	75	48	630

**Monthly and yearly statistics for previous record (Oct 1962 to Dec 1983)**

Mean	Avg	1.968	2.007	1.994	1.491	1.078	0.692	0.500	0.454	0.515	0.691	1.138	1.674	1.180
flows	Low	0.532	0.460	0.479	0.479	0.341	0.356	0.182	0.161	0.215	0.296	0.325	0.379	0.822
(m <sup>3</sup> s <sup>-1</sup> )	High	3.916	4.696	3.583	3.843	2.860	1.271	1.007	0.837	1.538	1.955	4.532	4.307	1.627
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		14.10	19.00	21.71	12.31	17.80	7.75	2.63	3.28	11.44	10.00	19.60	21.60	21.71
Runoff (mm)		21	20	22	16	12	7	5	5	5	7	12	18	150
Rainfall (mm)		45	36	47	45	48	49	44	48	52	47	60	52	573

Factors affecting flow regime: R EI  
Station type: FL1984 runoff is 97% of previous mean  
rainfall 110%**037014 Roding at High Ongar****1984**Measuring authority: TWA  
First year: 1963Grid reference: TL 561040  
Level stn. (m OD) 41.00Catchment area (sq km): 95.1  
Max alt. (m OD): 113**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1.053	0.763	0.587	0.290	0.263	0.141	0.052	0.045	0.097	0.167	0.972	1.208	0.469
(m <sup>3</sup> s <sup>-1</sup> )	Peak	6.26	2.98	4.75	1.15	2.34	0.36	0.19	0.07	0.45	0.92	5.46	5.05	6.26
Runoff (mm)		30	20	16	8	7	4	1	1	3	5	26	34	156
Rainfall (mm)		83	29	50	11	76	42	21	38	99	63	83	54	649

**Monthly and yearly statistics for previous record (Dec 1963 to Dec 1983)**

Mean	Avg	1.122	1.039	0.876	0.523	0.348	0.120	0.052	0.067	0.154	0.334	0.572	0.859	0.503
flows	Low	0.081	0.077	0.066	0.065	0.034	0.015	0.007	0.004	0.013	0.029	0.044	0.065	0.071
(m <sup>3</sup> s <sup>-1</sup> )	High	1.980	2.598	1.982	2.180	1.471	0.291	0.097	0.297	1.320	2.471	4.637	2.745	0.926
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		18.50	25.40	15.87	16.20	25.60	3.79	0.75	12.20	20.02	32.80	36.05	25.10	36.05
Runoff (mm)		32	27	25	14	10	3	1	2	4	9	16	24	167
Rainfall (mm)		50	39	50	47	50	49	45	53	53	51	64	56	607

Factors affecting flow regime: G  
Station type: EW1984 runoff is 93% of previous mean  
rainfall 107%**038001 Lee at Feildes Weir****1984**Measuring authority: TWA  
First year: 1936Grid reference: TL 390092  
Level stn. (m OD) 27.70Catchment area (sq km): 1036.0  
Max alt. (m OD): 229**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	8.007	6.194	4.388	2.995	3.180	3.139	1.200	1.357	2.442	2.707	7.393	7.225	4.186
(m <sup>3</sup> s <sup>-1</sup> )	Peak													
Runoff (mm)		21	15	11	7	8	8	3	4	6	7	19	19	127
Rainfall (mm)		84	39	48	10	80	57	17	46	106	73	94	48	702

**Monthly and yearly statistics for previous record (Oct 1936 to Dec 1983—incomplete or missing months total 1.9 years)**

Mean	Avg	6.624	6.779	6.299	4.528	3.670	2.506	1.771	1.634	1.734	2.421	4.110	5.160	3.923
flows	Low	1.053	0.959	0.461	0.485	0.302	0.224	0.081	0.085	0.131	0.302	0.418	1.100	0.885
(m <sup>3</sup> s <sup>-1</sup> )	High	17.200	17.790	29.440	12.000	12.260	7.618	4.993	3.841	7.063	10.420	13.870	13.210	7.181
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		37.21	33.98	36.79	30.73	20.16	15.96	9.71	13.17	49.56	25.47	33.90	41.04	49.56
Runoff (mm)		17	15	16	13	13	8	6	6	6	8	10	16	133
Rainfall (mm)		58	43	48	44	51	50	55	60	54	59	65	57	644

Factors affecting flow regime: PGEI  
Station type: MIS1984 runoff is 96% of previous mean  
rainfall 109%

**038007 Canons Brook at Elizabeth Way****1984**Measuring authority TWA  
First year 1950Grid reference TL 431104  
Level stn (m OD) 37.54Catchment area (sq km) 21.4  
Max alt. (m OD) 110**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.401	0.226	0.269	0.099	0.167	0.142	0.065	0.073	0.197	0.198	0.372	0.287	0.208
(m <sup>3</sup> s <sup>-1</sup> )	Peak	4.45	2.39	2.99	0.27	3.31	5.17	1.50	2.72	6.42	10.10	3.84	2.28	10.10
Runoff (mm)		50	26	34	12	21	17	8	9	24	25	45	36	307
Rainfall (mm)		82	28	46	8	64	44	16	31	103	71	80	51	824

**Monthly and yearly statistics for previous record (Oct 1965 to Dec 1983—incomplete or missing months total 0.4 years)**

Mean flows	Avg	0.301	0.304	0.261	0.208	0.195	0.129	0.111	0.120	0.123	0.158	0.218	0.266	0.199
(m <sup>3</sup> s <sup>-1</sup> )	Low	0.059	0.062	0.054	0.074	0.073	0.067	0.060	0.034	0.056	0.043	0.057	0.092	0.095
	High	0.470	0.883	0.468	0.520	0.420	0.252	0.210	0.194	0.294	0.468	0.794	0.507	0.253
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		8.25	11.50	6.56	10.31	12.20	10.46	10.97	10.61	9.00	10.60	9.85	9.36	12.20
Runoff (mm)		38	35	33	25	24	16	14	15	15	20	26	33	293
Rainfall (mm)		50	39	49	44	55	52	49	54	57	53	60	57	619

Factors affecting flow regime:  
Station type: FL1984 runoff is 105% of previous mean  
rainfall 101%**038021 Turkey Brook at Albany Park****1984**Measuring authority TWA  
First year 1971Grid reference TQ 359985  
Level stn (m OD) 16.60Catchment area (sq km) 42.2  
Max alt. (m OD) 127**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.506	0.289	0.304	0.044	0.095	0.061	0.013	0.039	0.164	0.248	0.588	0.398	0.229
(m <sup>3</sup> s <sup>-1</sup> )	Peak	3.82	3.32	4.96	0.17	1.01	0.61	0.14	0.26	2.86	8.14	5.75	1.99	8.14
Runoff (mm)		32	17	19	3	6	4	1	2	10	16	36	25	172
Rainfall (mm)		90	43	56	7	78	56	15	35	125	88	96	54	743

**Monthly and yearly statistics for previous record (Sep 1971 to Dec 1983)**

Mean flows	Avg	0.392	0.389	0.374	0.213	0.219	0.092	0.043	0.052	0.060	0.138	0.230	0.341	0.211
(m <sup>3</sup> s <sup>-1</sup> )	Low	0.037	0.042	0.024	0.020	0.014	0.021	0.013	0.008	0.019	0.016	0.019	0.086	0.057
	High	0.760	0.988	0.811	0.626	0.626	0.240	0.087	0.171	0.228	0.524	1.158	0.704	0.339
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		10.51	9.74	5.14	7.72	20.69	15.30	2.38	2.76	7.55	7.65	12.75	10.51	20.69
Runoff (mm)		25	22	24	13	14	6	3	3	4	9	14	22	158
Rainfall (mm)		57	45	61	47	62	52	42	49	65	57	61	64	862

Factors affecting flow regime: G  
Station type: FV1984 runoff is 109% of previous mean  
rainfall 112%**039002 Thames at Days Weir****1984**Measuring authority TWA  
First year 1938Grid reference SU 568935  
Level stn (m OD) 46.02Catchment area (sq km) 3444.7  
Max alt. (m OD) 330**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	58.380	54.160	29.420	16.570	10.830	7.725	3.404	3.120	4.588	5.770	45.000	48.210	23.931
(m <sup>3</sup> s <sup>-1</sup> )	Peak													
Runoff (mm)		45	39	23	12	8	6	3	2	3	4	34	37	219
Rainfall (mm)		103	41	48	4	74	28	15	44	96	65	127	54	699

**Monthly and yearly statistics for previous record (Oct 1938 to Dec 1983)**

Mean flows	Avg	55.290	57.100	47.180	30.740	21.190	14.500	8.622	7.300	8.955	15.480	31.480	44.940	28.429
(m <sup>3</sup> s <sup>-1</sup> )	Low	6.250	5.554	5.620	4.253	2.855	1.502	0.399	0.296	1.741	2.778	4.040	5.312	10.095
	High	133.600	120.800	163.200	85.070	61.140	41.560	48.820	18.690	38.630	74.570	128.100	128.700	51.292
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		43	40	37	23	16	11	7	6	7	12	24	35	260
Runoff (mm)		66	48	54	47	59	54	54	68	62	63	71	68	714
Rainfall (mm)														

Factors affecting flow regime: P EI  
Station type: MIS1984 runoff is 84% of previous mean  
rainfall 98%**039014 Ver at Hansteads****1984**Measuring authority TWA  
First year 1956Grid reference TL 151016  
Level stn (m OD) 61.34Catchment area (sq km) 132.0  
Max alt. (m OD) 243**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.403	0.481	0.437	0.382	0.339	0.340	0.185	0.141	0.201	0.224	0.320	0.370	0.319
(m <sup>3</sup> s <sup>-1</sup> )	Peak	0.82	0.93	1.01	0.50	0.70	0.70	0.39	0.44	0.58	0.90	0.92	0.86	1.01
Runoff (mm)		8	9	9	8	7	7	4	3	4	5	6	8	76
Rainfall (mm)		98	49	64	7	84	60	23	55	106	82	107	61	796

**Monthly and yearly statistics for previous record (Oct 1956 to Dec 1983)**

Mean flows	Avg	0.490	0.554	0.594	0.569	0.507	0.438	0.374	0.330	0.296	0.311	0.367	0.424	0.437
(m <sup>3</sup> s <sup>-1</sup> )	Low	0.126	0.190	0.138	0.114	0.069	0.045	0.028	0.016	0.025	0.057	0.039	0.048	0.095
	High	0.981	1.336	1.312	1.254	1.028	0.857	0.652	0.564	0.660	0.668	0.791	0.977	0.752
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		1.77	1.91	1.88	1.90	2.07	1.65	1.44	1.13	2.34	1.35	2.31	2.64	2.64
Runoff (mm)		10	10	12	11	10	9	8	7	6	6	7	9	105
Rainfall (mm)		62	48	58	52	55	59	53	57	63	64	67	74	712

Factors affecting flow regime: G  
Station type: CC1984 runoff is 73% of previous mean  
rainfall 112%

**039016 Kennet at Theale****1984**Measuring authority: TWA  
First year: 1961Grid reference: SU 649708  
Level stn. (m OD) 43.37Catchment area (sq km): 1033.4  
Max alt. (m OD): 297**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	13 350	16 350	14 290	10 690	8 802	6 775	4 715	3 987	4 417	4 541	7 811	11 240	8 914
(m <sup>3</sup> s <sup>-1</sup> )	Peak	28 00	24 00	32 00	15 60	15 90	10 20	5 57	5 32	11 90	9 27	21 60	22 10	32 00
Runoff (mm)		35	40	37	27	23	17	12	10	11	12	20	29	272
Rainfall (mm)		140	41	65	7	91	29	18	38	101	68	126	87	806

**Monthly and yearly statistics for previous record (Oct 1961 to Dec 1983)**

Mean	Avg	12 850	14 290	14 910	12 830	10 550	8 728	6 564	5 784	5 421	6 181	7 974	10 170	9 663
flows	Low	4 144	4 401	4 190	3 429	2 739	2 041	1 620	1 377	2 787	3 897	3 943	5 159	4 056
(m <sup>3</sup> s <sup>-1</sup> )	High	22 680	22 720	22 010	19 790	15 430	18 600	11 120	9 542	10 000	13 970	17 710	18 240	12 882
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		48 30	44 80	44 30	31 70	30 10	70 80	19 00	19 40	33 40	29 40	43 50	47 30	70 80
Runoff (mm)		33	34	39	32	27	22	17	15	14	16	20	26	295
Rainfall (mm)		71	51	71	52	63	61	48	67	70	66	75	80	775

Factors affecting flow regime: R G I  
Station type: C ✓1984 runoff is 92% of previous mean  
rainfall 104%**039019 Lambourn at Shaw****1984**Measuring authority: TWA  
First year: 1962Grid reference: SU 470682  
Level stn. (m OD) 75.59Catchment area (sq km): 234.1  
Max alt. (m OD): 261**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1 519	2 629	2 552	2 236	1 932	1 547	1 159	0 953	0 934	0 914	1 058	1 228	1 555
(m <sup>3</sup> s <sup>-1</sup> )	Peak	2 82	2 94	3 45	2 98	2 27	1 98	1 49	1 21	2 32	1 17	1 75	1 50	3 45
Runoff (mm)		17	28	29	25	22	17	13	11	10	10	12	14	209
Rainfall (mm)		136	42	60	3	91	30	18	28	105	58	127	79	777

**Monthly and yearly statistics for previous record (Oct 1962 to Dec 1983)**

Mean	Avg	1 730	2 142	2 470	2 467	2 184	1 889	1 552	1 317	1 190	1 173	1 252	1 422	1 730
flows	Low	0 826	0 796	0 743	0 695	0 639	0 573	0 538	0 485	0 681	0 683	0 757	0 855	0 739
(m <sup>3</sup> s <sup>-1</sup> )	High	3 410	3 618	3 583	3 550	2 979	2 764	2 359	2 048	1 699	1 921	2 392	2 551	2 151
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		3 93	4 70	4 39	4 08	3 76	4 34	3 06	3 54	3 75	3 17	5 02	3 72	5 02
Runoff (mm)		20	22	28	27	25	21	18	15	13	13	14	16	233
Rainfall (mm)		64	49	69	51	62	59	49	63	65	61	73	76	741

Factors affecting flow regime: R G  
Station type: C1984 runoff is 90% of previous mean  
rainfall 105%**039023 Wye at Hedsor****1984**Measuring authority: TWA  
First year: 1964Grid reference: SU 896867  
Level stn. (m OD) 26.82Catchment area (sq km): 137.3  
Max alt. (m OD): 244**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0 976	1 064	1 102	1 059	1 004	0 964	0 809	0 745	0 734	0 720	0 750	0 803	0 894
(m <sup>3</sup> s <sup>-1</sup> )	Peak	2 13	1 86	2 46	1 36	2 57	2 09	1 24	2 66	3 46	1 82	1 82	1 55	3 46
Runoff (mm)		19	19	22	20	20	18	16	15	14	14	14	16	206
Rainfall (mm)		105	43	60	4	91	60	26	49	100	74	92	72	776

**Monthly and yearly statistics for previous record (Dec 1964 to Dec 1983)**

Mean	Avg	0 946	1 043	1 153	1 198	1 182	1 139	1 035	0 982	0 884	0 838	0 832	0 873	1 008
flows	Low	0 419	0 484	0 488	0 470	0 432	0 380	0 370	0 314	0 381	0 395	0 375	0 340	0 442
(m <sup>3</sup> s <sup>-1</sup> )	High	1 506	1 675	1 800	1 891	1 842	1 582	1 434	1 317	1 182	1 180	1 329	1 373	1 365
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		3 49	2 76	3 21	3 26	3 98	3 51	2 94	4 17	4 43	3 14	2 79	2 85	4 43
Runoff (mm)		18	19	22	23	23	22	20	19	17	16	16	17	232
Rainfall (mm)		69	51	63	54	65	62	56	66	71	64	70	78	769

Factors affecting flow regime: G I  
Station type: C1984 runoff is 89% of previous mean  
rainfall 101%**039026 Cherwell at Banbury****1984**Measuring authority: TWA  
First year: 1966Grid reference: SP 458411  
Level stn. (m OD) 88.85Catchment area (sq km): 199.4  
Max alt. (m OD): 222**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2 596	2 725	1 763	0 555	0 282	0 144	0 030	0 021	0 049	0 075	1 216	1 130	0 882
(m <sup>3</sup> s <sup>-1</sup> )	Peak	15 30	10 70	10 40	1 69	1 94	0 76	0 48	0 30	0 65	0 48	11 30	3 03	15 30
Runoff (mm)		35	34	24	7	4	2	0	0	1	1	16	15	139
Rainfall (mm)		92	55	52	8	66	32	22	42	82	65	109	45	670

**Monthly and yearly statistics for previous record (Dec 1966 to Dec 1983)**

Mean	Avg	2 427	2 353	2 179	0 998	0 901	0 467	0 253	0 380	0 252	0 477	0 815	1 861	1 110
flows	Low	0 074	0 049	0 031	0 012	0 010	0 008	0 004	0 009	0 016	0 013	0 018	0 056	0 259
(m <sup>3</sup> s <sup>-1</sup> )	High	5 019	5 320	4 781	2 076	2 676	1 434	1 869	1 343	1 532	1 715	2 828	3 967	1 672
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		23 60	45 90	46 40	12 00	12 60	16 90	27 20	17 20	7 25	9 00	18 20	54 10	54 10
Runoff (mm)		33	29	29	13	12	6	3	5	3	6	11	25	176
Rainfall (mm)*		62	45	65	41	58	62	54	70	60	49	56	66	688

\*(1970-1983)

Factors affecting flow regime: P  
Station type: CC1984 runoff is 79% of previous mean  
rainfall 97%



**039029 Tillingbourne at Shalford****1984**Measuring authority: TWA  
First year: 1968Grid reference: TQ 000478  
Level stn. (m OD) 31.70Catchment area (sq km) 59.0  
Max alt. (m OD) 294**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.720	0.635	0.720	0.587	0.571	0.482	0.421	0.403	0.411	0.489	0.562	0.626	0.552
(m <sup>3</sup> s <sup>-1</sup> )	Peak	1.48	1.10	2.58	0.80	1.14	0.65	0.54	0.59	0.73	1.32	1.45	1.20	2.58
Runoff (mm)		33	27	33	26	26	21	19	18	18	22	25	28	296
Rainfall (mm)		140	44	105	4	92	34	23	37	75	125	116	94	884

**Monthly and yearly statistics for previous record (Jun 1968 to Dec 1983)**

Mean	Avg	0.665	0.642	0.645	0.608	0.579	0.527	0.476	0.471	0.502	0.519	0.575	0.625	0.569
flows	Low	0.457	0.423	0.398	0.398	0.376	0.353	0.340	0.326	0.357	0.362	0.354	0.392	0.389
(m <sup>3</sup> s <sup>-1</sup> )	High	0.965	0.857	0.900	0.897	0.819	0.830	0.599	0.619	0.885	0.701	0.883	0.840	0.686
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		2.70	2.26	3.23	3.00	1.91	2.79	1.61	2.36	6.09	2.10	3.65	3.25	6.09
Runoff (mm)		30	26	29	27	26	23	22	21	22	24	25	28	304
Rainfall (mm)		81	50	70	53	64	60	50	60	85	75	84	85	817

Factors affecting flow regime: G I  
Station type: C1984 runoff is 97% of previous mean  
rainfall 108%**039049 Silk Stream at Colindeep Lane****1984**Measuring authority: GLC  
First year: 1973Grid reference: TQ 217895  
Level stn. (m OD) 39.90Catchment area (sq km) 29.0  
Max alt. (m OD) 146**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.484	0.244	0.328	0.091	0.234	0.148	0.107	0.078	0.363	0.463	0.397	0.317	0.271
(m <sup>3</sup> s <sup>-1</sup> )	Peak													
Runoff (mm)		45	21	30	8	22	13	10	7	37	43	35	29	296
Rainfall (mm)		97	32	67	7	83	52	26	37	119	83	92	58	753

**Monthly and yearly statistics for previous record (Dec 1973 to Dec 1983—incomplete or missing months total 4.0 years)**

Mean	Avg	0.336	0.315	0.403	0.288	0.289	0.241	0.125	0.121	0.123	0.306	0.374	0.340	0.272
flows	Low	0.200	0.101	0.185	0.030	0.035	0.105	0.047	0.053	0.057	0.114	0.130	0.143	0.215
(m <sup>3</sup> s <sup>-1</sup> )	High	0.564	0.474	0.677	0.573	0.584	0.640	0.213	0.200	0.276	0.507	1.086	0.659	0.314
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		9.00	4.85	8.89	10.26	11.80	7.59	16.53	10.11	3.83	16.56	24.27	36.31	36.31
Runoff (mm)		31	26	37	26	27	22	12	11	11	28	33	31	296
Rainfall (mm)		55	44	62	47	65	57	39	51	70	66	61	68	885

Factors affecting flow regime  
Station type: FV1984 runoff is 100% of previous mean  
rainfall 110%**039069 Mole at Kinnersley Manor****1984**Measuring authority: TWA  
First year: 1972Grid reference: TQ 262467  
Level stn. (m OD) 48.00Catchment area (sq km) 142.0  
Max alt. (m OD) 178**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5.483	2.357	3.029	1.099	1.136	0.523	0.332	0.375	0.491	1.792	3.854	4.361	2.089
(m <sup>3</sup> s <sup>-1</sup> )	Peak	26.30	10.70	22.30	6.27	11.70	3.00	1.15	3.00	5.79	17.40	27.60	23.80	27.80
Runoff (mm)		103	42	57	20	21	10	6	7	9	34	70	82	462
Rainfall (mm)		137	40	94	4	78	21	23	23	62	122	113	97	814

**Monthly and yearly statistics for previous record (Dec 1972 to Dec 1983—incomplete or missing months total 1.5 years)**

Mean	Avg	3.191	2.984	2.639	1.614	1.661	1.005	0.585	0.671	1.163	1.836	2.180	3.760	1.938
flows	Low	1.364	0.829	0.833	0.388	0.305	0.221	0.296	0.169	0.281	0.207	0.260	1.100	0.950
(m <sup>3</sup> s <sup>-1</sup> )	High	5.576	5.883	4.668	3.666	3.552	1.874	1.709	1.763	5.419	6.062	5.668	5.474	2.313
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		41.30	46.50	20.10	47.00	32.90	23.30	14.90	29.80	40.70	45.90	56.10	68.50	68.50
Runoff (mm)		60	51	50	29	31	18	11	13	21	35	40	71	430
Rainfall (mm)		75	55	69	46	63	59	43	55	87	83	79	95	809

Factors affecting flow regime  
Station type: MIS1984 runoff is 107% of previous mean  
rainfall 101%**040003 Medway at Teston****1984**Measuring authority: SWA  
First year: 1956Grid reference: TQ 708530  
Level stn. (m OD) 7.01Catchment area (sq km) 1256.1  
Max alt. (m OD) 267**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	33.950	13.340	16.060	7.919	5.389	3.706	2.286	2.240	2.192	6.071	15.960	21.480	10.883
(m <sup>3</sup> s <sup>-1</sup> )	Peak	119.60	39.18	89.85	40.71	26.01	11.01	7.58	4.19	5.44	31.19	110.90	52.41	119.60
Runoff (mm)		72	27	34	16	11	8	5	5	5	13	33	46	275
Rainfall (mm)		135	36	78	7	69	32	43	22	66	117	103	89	797

**Monthly and yearly statistics for previous record (Oct 1956 to Dec 1983—incomplete or missing months total 1.5 years)**

Mean	Avg	21.770	19.780	15.040	10.400	7.721	4.914	2.887	3.190	5.302	7.710	16.000	19.770	11.122
flows	Low	4.910	5.260	3.382	2.326	1.749	1.139	1.116	0.577	1.066	1.402	2.341	4.362	7.584
(m <sup>3</sup> s <sup>-1</sup> )	High	45.370	49.150	31.600	23.470	20.820	21.690	7.550	7.888	30.090	37.860	66.830	37.330	19.327
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		162.50	148.70	169.30	105.90	67.20	128.60	23.82	60.60	86.93	154.00	294.50	202.50	294.50
Runoff (mm)		46	38	32	21	15	10	6	7	11	16	33	42	279
Rainfall (mm)		69	52	56	49	54	55	52	58	74	73	82	87	758

Factors affecting flow regime: S PG  
Station type: MIS1984 runoff is 98% of previous mean  
rainfall 105%

**040004 Rother at Udiam****1984**Measuring authority: SWA  
First year: 1962Grid reference: TQ 773245  
Level stn. (m OD) 1.94Catchment area (sq km): 206.0  
Max alt. (m OD): 197**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	5 861	3 049	2 905	1 504	0 836	0 541	0 382	0 294	0 426	1 648	5 455	6 255	2 430
(m <sup>3</sup> s <sup>-1</sup> )	Peak													
Runoff (mm)		76	37	38	19	11	7	5	4	5	21	69	81	373
Rainfall (mm)		171	46	88	5	67	33	62	27	70	143	135	136	978

**Monthly and yearly statistics for previous record (Oct 1962 to Dec 1983—incomplete or missing months total 1.8 years)**

Mean	Avg.	3 438	3 478	3 192	2 198	1 467	1 070	0 490	0 587	0 928	1 595	3 043	3 406	2 087
flows	Low	0 945	0 792	0 657	0 343	0 338	0 268	0 231	0 187	0 245	0 179	0 184	0 427	0 756
(m <sup>3</sup> s <sup>-1</sup> )	High	6 957	10 370	6 927	4 533	2 817	4 157	0 834	1 823	3 957	5 708	12 360	9 547	3 322
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		37 96	44 74	49 84	25 43	24 09	23 08	12 74	14 36	33 98	29 17	50 43	51 82	51 82
Runoff (mm)		45	41	42	28	19	13	6	8	12	21	38	44	316
Rainfall (mm)		78	63	71	57	60	64	50	67	84	83	100	89	861

Factors affecting flow regime: S GE  
Station type: VA1984 runoff is 118% of previous mean  
rainfall 114%**040009 Teise at Stone Bridge****1984**Measuring authority: SWA  
First year: 1961Grid reference: TQ 718399  
Level stn. (m OD) 24.50Catchment area (sq km): 136.2  
Max alt. (m OD): 201**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	4 211	1 314	1 180	0 539	1 012	0 752	0 774	0 755	0 699	0 906	1 440	1 866	1 287
(m <sup>3</sup> s <sup>-1</sup> )	Peak	19 78	5 40	12 09	2 69	4 22	1 56	1 17	0 86	0 93	6 56	19 50	13 54	19 78
Runoff (mm)		83	24	23	10	20	14	15	15	13	18	27	37	300
Rainfall (mm)		156	40	79	6	73	33	53	20	60	129	118	101	868

**Monthly and yearly statistics for previous record (Oct 1961 to Dec 1983—incomplete or missing months total 0.2 years)**

Mean	Avg.	2 384	2 156	1 949	1 416	1 129	0 799	0 513	0 496	0 680	1 008	1 803	2 042	1 361
flows	Low	0 553	0 522	0 413	0 323	0 239	0 130	0 231	0 100	0 170	0 128	0 276	0 471	0 559
(m <sup>3</sup> s <sup>-1</sup> )	High	5 757	6 241	3 928	2 781	2 306	2 628	0 977	1 021	2 359	3 173	6 344	5 334	2 101
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		41 63	48 27	34 43	24 78	38 95	29 22	13 87	10 61	23 88	29 17	47 12	48 29	48 29
Runoff (mm)		47	39	38	27	22	15	10	10	13	20	34	40	315
Rainfall (mm)		72	55	67	53	59	58	47	58	78	76	89	84	796

Factors affecting flow regime: PGE  
Station type: B VA1984 runoff is 95% of previous mean  
rainfall 109%**041001 Nunningham Stream at Tilley Bridge****1984**Measuring authority: SWA  
First year: 1950Grid reference: TQ 662129  
Level stn. (m OD) 3.80Catchment area (sq km): 16.9  
Max alt. (m OD): 137**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	1 105	0 699	0 297	0 112	0 047	0 029	0 014	0 013	0 013	0 043	0 324	0 531	0 269
(m <sup>3</sup> s <sup>-1</sup> )	Peak	1 90	1 90	1 89	0 83	0 33	0 12	0 08	0 02	0 03	0 31	8 79	8 80	8 80
Runoff (mm)		175	104	47	17	7	5	2	2	2	7	50	84	502
Rainfall (mm)		161	44	80	3	60	37	62	29	61	132	115	126	910

**Monthly and yearly statistics for previous record (Apr 1950 to Dec 1983—incomplete or missing months total 0.1 years)**

Mean	Avg.	0 391	0 334	0 245	0 148	0 084	0 056	0 034	0 040	0 057	0 131	0 308	0 366	0 182
flows	Low	0 076	0 094	0 054	0 034	0 023	0 012	0 011	0 008	0 009	0 013	0 019	0 033	0 053
(m <sup>3</sup> s <sup>-1</sup> )	High	0 865	0 958	0 577	0 390	0 195	0 319	0 210	0 125	0 359	0 576	1 017	1 082	0 306
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		8 82	8 60	8 49	5 94	6 20	7 92	1 89	9 32	8 92	8 82	11 90	8 84	11 90
Runoff (mm)		62	48	39	23	13	9	5	6	9	21	47	58	340
Rainfall (mm)		79	61	58	50	54	57	56	72	80	87	98	95	847

Factors affecting flow regime: N  
Station type: MIS1984 runoff is 148% of previous mean  
rainfall 107%**041005 Ouse at Gold Bridge****1984**Measuring authority: SWA  
First year: 1960Grid reference: TQ 429214  
Level stn. (m OD) 11.43Catchment area (sq km): 180.9  
Max alt. (m OD): 203**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	6 478	3 412	3 255	2 019	1 276	0 729	0 514	0 568	0 845	1 061	3 160	4 879	2 350
(m <sup>3</sup> s <sup>-1</sup> )	Peak	32 69	8 30	12 88	7 90	5 67	1 93	1 15	0 88	1 99	5 02	25 66	16 54	32 69
Runoff (mm)		96	47	48	29	19	10	8	8	12	16	45	72	411
Rainfall (mm)		159	41	86	4	77	26	28	26	62	137	122	113	881

**Monthly and yearly statistics for previous record (Mar 1960 to Dec 1983—incomplete or missing months total 0.3 years)**

Mean	Avg.	4 081	3 551	3 092	2 267	1 784	1 076	0 622	0 688	1 097	1 744	3 377	3 553	2 238
flows	Low	1 142	1 240	0 793	0 611	0 451	0 283	0 217	0 157	0 230	0 275	0 384	0 846	0 934
(m <sup>3</sup> s <sup>-1</sup> )	High	7 762	8 214	6 888	4 318	3 657	3 829	1 903	2 088	4 296	6 602	12 030	7 657	3 261
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		48 80	71 85	29 86	31 57	26 35	27 91	16 52	33 15	49 01	47 59	86 92	81 06	86 92
Runoff (mm)		60	48	46	32	26	15	9	10	16	26	48	53	390
Rainfall (mm)		82	58	67	60	63	63	51	65	88	86	102	92	877

Factors affecting flow regime: SRPGE  
Station type: CBVA1984 runoff is 105% of previous mean  
rainfall 100%

**041006 Uck at Isfield****1984**Measuring authority SWA  
First year 1964Grid reference TQ 459190  
Level stn. (m OD) 11.28Catchment area (sq km) 87.8  
Max alt. (m OD) 221**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4 154	1 494	1 379	0 753	0 519	0 389	0 242	0 207	0 227	0 757	2 727	3 651	1 375
(m <sup>3</sup> s <sup>-1</sup> )	Peak	46 65	6 09	16 78	3 55	3 02	2 23	1 02	0 29	0 60	6 72	49 24	44 12	49 24
Runoff (mm)		127	43	42	22	16	11	7	6	7	23	81	111	498
Rainfall (mm)		157	44	75	3	65	33	44	27	61	135	117	128	889

**Monthly and yearly statistics for previous record (Oct 1964 to Dec 1983)**

Mean	Avg	1 988	1 862	1 394	1 055	0 805	0 542	0 345	0 313	0 581	0 863	1 579	1 936	1 101
flows	Low	0 579	0 627	0 413	0 324	0 252	0 170	0 142	0 106	0 170	0 160	0 211	0 342	0 480
(m <sup>3</sup> s <sup>-1</sup> )	High	4 030	4 195	3 317	2 183	1 854	1 657	1 489	0 827	2 868	2 527	6 536	4 034	1 945
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		41 58	75 63	39 12	23 74	28 97	29 59	46 63	10 72	36 40	37 31	64 43	55 58	75 63
Runoff (mm)		61	52	43	31	25	16	11	10	17	26	47	59	396
Rainfall (mm)		78	62	64	51	59	66	49	61	82	78	92	88	830

Factors affecting flow regime E  
Station type C1984 runoff is 125% of previous mean  
rainfall 107%**041025 Loxwood Stream at Drungewick****1984**Measuring authority SWA  
First year 1972Grid reference TQ 060309  
Level stn. (m OD) 13.15Catchment area (sq km) 91.6  
Max alt. (m OD) 260**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3 745	1 361	2 025	0 379	0 535	0 132	0 059	0 060	0 113	0 604	2 355	2 543	1 159
(m <sup>3</sup> s <sup>-1</sup> )	Peak	26 11	10 50	21 68	2 19	6 09	0 50	0 21	0 22	0 44	6 34	24 75	14 03	26 11
Runoff (mm)		110	37	59	11	16	4	2	2	3	18	67	74	401
Rainfall (mm)		156	44	90	4	83	22	26	47	76	126	117	104	895

**Monthly and yearly statistics for previous record (Jan 1972 to Dec 1983—incomplete or missing months total 0.3 years)**

Mean	Avg	2 076	1 667	1 701	0 981	0 844	0 377	0 102	0 184	0 507	1 036	1 298	2 431	1 100
flows	Low	0 266	0 375	0 196	0 116	0 078	0 041	0 032	0 018	0 043	0 044	0 062	0 618	0 311
(m <sup>3</sup> s <sup>-1</sup> )	High	4 264	3 497	3 832	2 680	2 799	1 334	0 227	0 685	2 470	3 262	4 748	4 536	1 509
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		34 88	36 49	31 33	41 61	32 73	36 90	5 66	22 48	36 44	36 48	34 58	56 75	56 75
Runoff (mm)		61	44	50	28	25	11	3	5	14	30	37	71	379
Rainfall (mm)*		80	53	72	49	62	63	47	56	82	79	77	93	813

\*(1971-1983)  
Factors affecting flow regime N  
Station type CC1984 runoff is 106% of previous mean  
rainfall 110%**041027 Rother at Princes Marsh****1984**Measuring authority SWA  
First year 1973Grid reference SU 772270  
Level stn. (m OD) 56.40Catchment area (sq km) 37.2  
Max alt. (m OD) 252**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1 457	0 710	0 682	0 412	0 357	0 227	0 181	0 179	0 183	0 269	0 700	0 897	0 521
(m <sup>3</sup> s <sup>-1</sup> )	Peak	8 75	1 78	4 61	1 35	1 41	0 34	0 66	0 59	0 59	1 43	9 13	3 49	9 13
Runoff (mm)		105	48	49	29	26	16	13	13	13	19	49	65	443
Rainfall (mm)		181	50	94	3	107	21	46	41	94	101	138	110	986

**Monthly and yearly statistics for previous record (Nov 1972 to Dec 1983—incomplete or missing months total 0.2 years)**

Mean	Avg	0 785	0 713	0 709	0 475	0 413	0 299	0 226	0 216	0 313	0 912	0 601	0 815	0 540
flows	Low	0 273	0 320	0 237	0 194	0 158	0 121	0 120	0 106	0 168	0 165	0 167	0 348	0 288
(m <sup>3</sup> s <sup>-1</sup> )	High	1 485	1 409	1 220	0 684	0 642	0 471	0 300	0 326	0 949	4 305	1 855	1 300	0 796
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		15 63	13 72	10 71	6 83	7 20	4 68	2 17	2 54	12 97	68 03	16 60	22 19	68 03
Runoff (mm)		57	47	51	33	30	21	16	16	22	66	42	59	458
Rainfall (mm)*		85	61	83	42	66	56	51	56	93	87	82	104	886

\*(1973-1983)  
Factors affecting flow regime GE  
Station type C1984 runoff is 97% of previous mean  
rainfall 114%**042003 Lymington at Brockenhurst Park****1984**Measuring authority SWA  
First year 1960Grid reference SU 318019  
Level stn. (m OD) 6.10Catchment area (sq km) 98.9  
Max alt. (m OD) 114**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2 426	1 174	1 174	0 553	0 824	0 361	0 045	0 044	0 119	0 468	1 573	2 289	0 921
(m <sup>3</sup> s <sup>-1</sup> )	Peak	7 95	5 37	7 95	7 95	7 95	2 45	0 12	0 16	1 21	5 65	7 95	7 85	7 95
Runoff (mm)		66	30	32	15	22	9	1	1	3	13	41	62	295
Rainfall (mm)		135	38	77	1	87	33	25	24	68	101	141	116	846

**Monthly and yearly statistics for previous record (Oct 1960 to Dec 1983—incomplete or missing months total 0.2 years)**

Mean	Avg	1 799	1 721	1 469	1 006	0 846	0 480	0 250	0 268	0 489	1 078	1 399	1 557	1 027
flows	Low	0 330	0 439	0 327	0 168	0 128	0 042	0 013	0 014	0 084	0 128	0 198	0 541	0 407
(m <sup>3</sup> s <sup>-1</sup> )	High	3 723	3 459	3 089	2 169	1 569	1 247	1 603	0 847	2 308	4 841	5 283	3 294	1 340
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		9 91	13 62	8 64	8 32	13 98	7 95	11 38	8 16	8 47	11 28	13 54	14 91	14 91
Runoff (mm)		49	42	40	26	23	13	7	7	13	29	37	42	328
Rainfall (mm)		86	60	69	53	64	59	43	62	81	85	92	91	845

Factors affecting flow regime N  
Station type VN1984 runoff is 90% of previous mean  
rainfall 100%

**042006 Meon at Mislingford****1984**Measuring authority: SWA  
First year: 1958Grid reference: SU 589141  
Level stn. (m OD) 29.33Catchment area (sq km): 72.8  
Max alt. (m OD): 233**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1.424	2.016	1.502	1.298	0.950	0.654	0.392	0.255	0.249	0.247	0.427	1.169	0.882
(m <sup>3</sup> s <sup>-1</sup> )	Peak	2.68	2.38	2.09	1.63	1.19	0.88	0.60	0.77	0.35	0.38	1.17	1.77	2.68
Runoff (mm)		52	69	55	46	35	23	14	9	9	9	15	43	381
Rainfall (mm)		172	51	82	2	97	19	45	33	95	113	140	126	975

**Monthly and yearly statistics for previous record (Oct 1958 to Dec 1983)**

Mean	Avg	1.525	1.763	1.676	1.381	1.037	0.758	0.548	0.409	0.364	0.551	0.855	1.150	0.998
flows	Low	0.463	0.480	0.427	0.335	0.164	0.120	0.079	0.068	0.102	0.110	0.124	0.186	0.334
(m <sup>3</sup> s <sup>-1</sup> )	High	3.470	3.300	2.820	1.988	1.738	1.220	0.827	0.657	0.882	2.309	4.126	3.917	1.807
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		3.51	4.02	3.26	2.83	2.06	1.50	1.18	1.08	0.96	1.50	2.83	3.77	4.02
Runoff (mm)		56	59	62	49	38	27	20	15	13	20	31	42	433
Rainfall (mm)		95	62	75	59	68	60	53	70	88	91	101	103	925

Factors affecting flow regime: G  
Station type: FL1984 runoff is 88% of previous mean  
rainfall 105%**042008 Cheriton Stream at Swards Bridge****1984**Measuring authority: SWA  
First year: 1970Grid reference: SU 574323  
Level stn. (m OD) 55.80Catchment area (sq km): 75.1  
Max alt. (m OD): 234**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0.786	1.032	0.902	0.893	0.637	0.580	0.487	0.345	0.320	0.367	0.486	0.773	0.834
(m <sup>3</sup> s <sup>-1</sup> )	Peak	1.09	1.33	1.32	1.18	0.78	0.66	0.67	0.60	0.45	0.89	0.75	0.98	1.33
Runoff (mm)		28	34	32	31	23	20	17	17	11	13	17	28	266
Rainfall (mm)		161	48	91	2	104	22	42	38	98	114	132	123	975

**Monthly and yearly statistics for previous record (Jul 1970 to Dec 1983—incomplete or missing months total 0.1 years)**

Mean	Avg	0.810	0.927	0.919	0.834	0.683	0.574	0.450	0.412	0.384	0.437	0.531	0.704	0.637
flows	Low	0.521	0.495	0.409	0.320	0.271	0.218	0.183	0.165	0.207	0.279	0.278	0.320	0.408
(m <sup>3</sup> s <sup>-1</sup> )	High	1.293	1.443	1.410	1.065	0.857	0.959	0.583	0.708	0.560	0.672	0.980	1.278	0.761
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		1.69	1.83	1.68	1.39	1.26	2.02	1.25	1.28	0.77	0.91	1.23	1.85	2.02
Runoff (mm)		29	30	33	29	24	20	16	15	13	16	18	25	268
Rainfall (mm)		93	65	80	48	63	62	53	60	85	79	98	101	887

Factors affecting flow regime: N  
Station type: C1984 runoff is 99% of previous mean  
rainfall 110%**042012 Anton at Fullerton****1984**Measuring authority: SWA  
First year: 1973Grid reference: SU 379393  
Level stn. (m OD) 40.51Catchment area (sq km): 185.0  
Max alt. (m OD): 253**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1.987	2.542	2.217	2.042	1.764	1.524	1.168	1.106	1.005	1.059	1.407	1.822	1.837
(m <sup>3</sup> s <sup>-1</sup> )	Peak													
Runoff (mm)		29	34	32	29	26	21	17	16	14	15	20	26	279
Rainfall (mm)		140	39	68	1	86	26	23	47	79	76	129	106	820

**Monthly and yearly statistics for previous record (Jan 1975 to Dec 1983)**

Mean	Avg	2.255	2.473	2.612	2.536	2.178	1.891	1.558	1.385	1.317	1.430	1.533	1.840	1.914
flows	Low	1.301	1.215	1.047	0.948	0.830	0.691	0.626	0.548	0.688	1.015	1.003	1.417	1.010
(m <sup>3</sup> s <sup>-1</sup> )	High	3.132	3.691	3.373	3.123	2.842	2.817	2.196	1.784	1.536	1.888	2.116	2.855	2.242
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		3.55	2.89	2.90	2.81	2.96	2.56	2.18	2.27	1.67	1.81	2.14	2.27	3.55
Runoff (mm)		33	33	38	36	32	26	23	20	18	21	21	27	326
Rainfall (mm)		71	53	88	43	61	51	41	56	71	74	63	101	773

Factors affecting flow regime: N  
Station type: C1984 runoff is 86% of previous mean  
rainfall 106%**043006 Nadder at Wilton Park****1984**Measuring authority: WWA  
First year: 1966Grid reference: SU 098308  
Level stn. (m OD) 51.15Catchment area (sq km): 220.6  
Max alt. (m OD): 277**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5.604	5.874	3.553	2.582	2.079	1.545	1.144	0.973	0.968	1.124	2.314	4.215	2.665
(m <sup>3</sup> s <sup>-1</sup> )	Peak	16.25	10.57	10.34	4.45	4.09	2.60	2.31	1.78	1.46	3.51	8.39	8.61	16.25
Runoff (mm)		68	67	43	30	25	18	14	12	11	14	27	51	381
Rainfall (mm)		175	56	74	2	97	35	26	42	93	100	148	122	970

**Monthly and yearly statistics for previous record (Jan 1966 to Dec 1983)**

Mean	Avg	4.679	5.147	4.614	3.236	2.504	2.005	1.545	1.373	1.402	1.893	2.634	3.833	2.895
flows	Low	1.011	1.263	1.339	1.048	0.993	0.839	0.684	0.595	0.823	0.829	0.906	1.219	1.535
(m <sup>3</sup> s <sup>-1</sup> )	High	6.521	8.196	6.732	5.272	4.044	3.283	2.234	2.040	3.093	3.537	6.413	7.030	3.821
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		22.71	17.57	18.80	14.27	28.13	8.83	13.39	6.61	16.68	10.99	22.90	47.88	47.88
Runoff (mm)		57	57	56	38	30	24	19	17	16	23	31	47	414
Rainfall (mm)		93	76	82	52	71	63	52	70	83	82	88	101	913

Factors affecting flow regime: N  
Station type: C1984 runoff is 92% of previous mean  
rainfall 106%

**043007 Stour at Throop Mill****1984**Measuring authority: WWA  
First year: 1972Grid reference: SZ 113958  
Level stn (m OD) 4.35Catchment area (sq km): 1073.0  
Max alt (m OD): 277**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	32 190	25 060	15 060	9 613	6 260	4 491	2 779	2 554	2 413	4 066	14 400	21 080	11 664
(m <sup>3</sup> s <sup>-1</sup> )	Peak	98 00	48 44	46 89	24 47	9 32	6 63	4 22	3 59	3 30	16 90	56 10	40 93	98 00
Runoff (mm)		80	59	38	23	16	11	7	6	6	10	35	53	343
Rainfall (mm)		159	48	64	3	76	30	20	38	81	95	139	104	857

**Monthly and yearly statistics for previous record (Jan 1973 to Dec 1983)**

Mean	Avg	22 910	25 060	22 530	13 700	10 120	7 070	4 763	4 512	5 710	10 270	13 610	23 000	13 558
flows	Low	4 319	6 876	7 548	4 483	3 157	2 231	1 614	1 358	2 455	2 716	2 823	6 386	6 138
(m <sup>3</sup> s <sup>-1</sup> )	High	35 150	42 200	32 620	22 660	18 900	16 410	7 932	8 998	20 340	29 770	36 370	40 270	17 377
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		116 60	131 50	110 70	61 56	161 20	159 20	47 60	32 41	90 33	101 90	133 40	190 70	190 70
Runoff (mm)		57	57	56	33	25	17	12	11	14	26	33	57	399
Rainfall (mm)		81	71	84	40	64	60	52	60	88	81	76	108	865

Factors affecting flow regime: I  
Station type: CC1984 runoff is 86% of previous mean  
rainfall 99%**044002 Piddle at Baggs Mill****1984**Measuring authority: WWA  
First year: 1963Grid reference: SY 913876  
Level stn (m OD) 2.06Catchment area (sq km): 183.1  
Max alt (m OD): 275**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3 683	5 117	2 949	2 188	1 574	1 245	0 856	0 762	0 702	0 873	1 628	2 750	2 027
(m <sup>3</sup> s <sup>-1</sup> )	Peak	7 47	6 86	3 84	3 82	2 07	1 88	1 28	0 99	1 02	1 64	5 75	4 51	7 47
Runoff (mm)		54	70	43	31	23	18	13	11	10	13	23	40	348
Rainfall (mm)		188	54	69	4	72	28	21	40	90	114	170	131	981

**Monthly and yearly statistics for previous record (Oct 1963 to Dec 1983—incomplete or missing months total 0.3 years)**

Mean	Avg	3 456	4 333	4 084	3 026	2 227	1 718	1 280	1 116	1 141	1 434	2 132	2 883	2 392
flows	Low	1 045	1 020	1 093	0 945	0 757	0 549	0 483	0 433	0 604	0 805	0 721	0 853	1 327
(m <sup>3</sup> s <sup>-1</sup> )	High	5 520	6 616	6 202	4 782	3 376	2 907	1 755	1 526	2 300	2 581	5 047	5 504	3 233
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		11 87	9 18	9 37	6 48	8 11	9 23	4 79	4 50	8 18	9 29	9 20	8 44	11 87
Runoff (mm)		51	58	60	43	33	24	19	16	16	21	30	42	412
Rainfall (mm)		104	84	87	51	72	62	50	61	91	91	105	110	968

Factors affecting flow regime: I  
Station type: FL1984 runoff is 85% of previous mean  
rainfall 101%**045003 Culm at Wood Mill****1984**Measuring authority: SWWA  
First year: 1962Grid reference: ST 021058  
Level stn (m OD) 43.97Catchment area (sq km): 226.1  
Max alt (m OD): 293**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	12 870	6 945	3 480	2 517	2 028	1 571	1 183	1 326	1 444	2 107	7 764	6 047	4 107
(m <sup>3</sup> s <sup>-1</sup> )	Peak	110 70	31 95	26 32	15 40	13 68	7 71	2 04	9 93	4 56	7 52	31 19	21 75	110 70
Runoff (mm)		152	77	41	29	24	18	14	16	17	25	89	72	573
Rainfall (mm)		224	79	66	7	66	29	31	68	94	84	181	84	1013

**Monthly and yearly statistics for previous record (Oct 1962 to Dec 1983)**

Mean	Avg	6 403	6 516	5 263	3 212	2 946	2 074	1 817	1 632	1 981	2 990	4 293	5 966	3 747
flows	Low	1 930	2 251	2 392	1 318	1 085	0 803	0 650	0 569	0 971	0 971	1 287	2 479	2 277
(m <sup>3</sup> s <sup>-1</sup> )	High	10 740	11 820	9 184	6 649	6 337	4 449	5 200	2 787	7 328	11 430	8 191	11 880	4 840
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		78 23	100 10	50 11	41 63	33 82	30 58	202 20	58 62	94 16	45 87	134 50	142 80	202 20
Runoff (mm)		76	70	62	37	35	24	22	19	23	35	49	71	523
Rainfall (mm)		107	85	89	57	72	64	60	65	82	86	96	112	975

Factors affecting flow regime: PGEL  
Station type: VA1984 runoff is 110% of previous mean  
rainfall 104%**045005 Otter at Dotton****1984**Measuring authority: SWWA  
First year: 1963Grid reference: SY 087885  
Level stn (m OD) 14.52Catchment area (sq km): 202.5  
Max alt (m OD): 299**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	8 339	4 287	2 994	2 069	1 496	1 227	0 923	1 058	1 076	1 400	4 985	4 616	2 872
(m <sup>3</sup> s <sup>-1</sup> )	Peak	72 67	19 12	32 13	14 00	7 48	5 24	1 75	4 41	2 94	5 34	22 14	27 79	72 67
Runoff (mm)		110	53	40	26	20	16	12	14	14	19	64	61	448
Rainfall (mm)		195	65	77	8	61	27	31	64	79	84	181	87	959

**Monthly and yearly statistics for previous record (Mar 1963 to Dec 1983)**

Mean	Avg	5 631	5 457	4 481	2 712	2 542	1 856	1 601	1 422	1 714	2 700	3 706	5 099	3 235
flows	Low	1 502	1 308	1 908	1 150	0 941	0 716	0 587	0 542	0 980	1 051	1 257	1 758	2 071
(m <sup>3</sup> s <sup>-1</sup> )	High	9 989	10 880	7 293	5 392	5 354	3 080	4 771	2 568	4 580	9 655	8 772	9 875	3 946
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		100 80	73 08	65 25	69 66	80 38	45 87	346 90	35 96	66 91	47 58	84 95	123 60	346 90
Runoff (mm)		74	66	59	35	34	24	21	19	22	36	47	67	504
Rainfall (mm)		116	91	87	54	76	64	59	61	81	89	95	115	988

Factors affecting flow regime: SRPGEL  
Station type: VA1984 runoff is 89% of previous mean  
rainfall 97%



**046002 Teign at Preston****1984**Measuring authority: SWWA  
First year: 1956Grid reference: SX 856746  
Level stn. (m OD) 3.83Catchment area (sq km): 380.0  
Max alt. (m OD): 604**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	33.830	19.290	7.015	6.164	3.216	1.827	1.106	1.207	1.895	6.249	21.660	16.930	10.032
	Peak	163.90	72.15	48.47	33.07	17.06	3.65	1.60	4.27	8.11	24.16	62.87	57.83	163.90
Runoff (mm)		238	127	49	42	23	12	8	9	13	44	148	119	833
Rainfall (mm)		288	100	84	11	76	14	37	88	116	154	242	99	1309

**Monthly and yearly statistics for previous record (May 1956 to Dec 1983—incomplete or missing months total 0.1 years)**

Mean	Avg	19.100	18.680	13.560	8.133	5.787	3.702	2.464	2.440	3.628	7.862	10.690	16.950	9.378
flows	Low	3.341	5.534	4.878	3.514	1.827	1.114	0.731	0.472	0.752	0.917	1.976	4.954	5.212
	High	36.080	38.750	29.940	21.960	17.770	9.522	7.334	5.549	14.080	41.570	28.960	37.820	15.681
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		172.70	198.20	146.60	122.50	86.08	81.35	98.87	72.64	312.80	190.00	153.60	248.40	312.80
Runoff (mm)		135	120	96	55	41	25	17	17	25	55	73	119	779
Rainfall (mm)		157	119	111	74	84	68	69	84	105	119	129	161	1280

Factors affecting flow regime: SRPGEI  
Station type: VA1984 runoff is 107% of previous mean  
rainfall 102%**046003 Dart at Austins Bridge****1984**Measuring authority: SWWA  
First year: 1958Grid reference: SX 751659  
Level stn. (m OD) 22.43Catchment area (sq km): 247.6  
Max alt. (m OD): 604**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	31.460	19.230	6.226	5.104	2.886	1.849	1.241	1.172	3.000	12.940	23.240	17.570	10.493
	Peak	269.80	76.23	73.36	25.48	19.04	3.72	2.61	3.05	32.84	59.48	121.20	44.78	269.80
Runoff (mm)		340	195	67	53	31	19	13	13	31	140	243	190	1337
Rainfall (mm)		398	156	106	10	82	21	58	88	184	263	310	172	1848

**Monthly and yearly statistics for previous record (Oct 1958 to Dec 1983)**

Mean	Avg	19.610	17.400	14.560	9.700	7.684	5.094	3.852	4.460	6.032	10.740	14.540	19.520	11.076
flows	Low	5.435	4.270	5.731	3.566	2.220	1.456	0.996	0.713	0.905	1.229	5.048	8.650	7.304
	High	36.680	37.760	33.520	27.720	14.530	14.260	10.930	8.490	26.290	28.000	32.960	35.540	15.592
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		284.00	309.40	218.30	187.40	98.88	253.00	206.50	190.30	327.60	168.20	317.80	549.70	549.70
Runoff (mm)		212	171	158	102	83	53	42	48	63	116	152	211	1412
Rainfall (mm)		227	163	166	114	111	97	92	116	140	171	197	235	1824

Factors affecting flow regime: SRPGEI  
Station type: VA1984 runoff is 95% of previous mean  
rainfall 101%**047007 Yealm at Puslinch****1984**Measuring authority: SWWA  
First year: 1962Grid reference: SX 574511  
Level stn. (m OD) 5.49Catchment area (sq km): 54.9  
Max alt. (m OD): 492**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	4.814	2.640	0.708	0.636	0.470	0.280	0.154	0.156	0.256	1.361	3.503	2.762	1.478
	Peak	26.66	8.31	2.79	1.55	3.15	0.92	0.25	0.68	5.96	13.62	27.12	10.67	26.66
Runoff (mm)		235	121	35	30	23	13	8	8	12	66	165	135	850
Rainfall (mm)		302	96	77	10	85	18	42	82	142	188	244	157	1443

**Monthly and yearly statistics for previous record (Oct 1963 to Dec 1983—incomplete or missing months total 0.2 years)**

Mean	Avg	2.911	2.935	2.255	1.294	1.061	0.834	0.591	0.605	0.831	1.478	2.140	2.906	1.643
flows	Low	0.563	1.318	0.659	0.572	0.327	0.171	0.095	0.057	0.183	0.121	0.373	1.171	1.052
	High	4.603	5.806	5.290	3.646	1.997	2.377	1.863	1.778	3.630	3.808	4.872	6.108	2.210
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		23.22	23.24	24.11	20.53	17.53	23.47	25.22	23.79	21.33	22.29	26.62	74.94	26.62
Runoff (mm)		142	130	110	61	52	39	29	30	39	69	101	142	944
Rainfall (mm)		162	134	130	78	99	91	82	96	118	127	156	172	1445

Factors affecting flow regime: PGEI  
Station type: FLVA1984 runoff is 90% of previous mean  
rainfall 100%**047008 Thrushel at Tinhay****1984**Measuring authority: SWWA  
First year: 1969Grid reference: SX 398856  
Level stn. (m OD) 55.47Catchment area (sq km): 112.7  
Max alt. (m OD): 299**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	8.074	4.099	1.651	0.743	0.298	0.156	0.081	0.102	0.571	3.529	6.643	5.184	2.594
	Peak	39.50	22.86	27.48	5.96	4.17	0.57	0.58	1.71	10.78	19.45	28.99	21.56	39.50
Runoff (mm)		192	91	39	17	7	4	2	2	13	84	153	123	727
Rainfall (mm)		217	86	68	7	69	21	57	85	149	141	200	118	1218

**Monthly and yearly statistics for previous record (Nov 1969 to Dec 1983)**

Mean	Avg	5.180	4.308	3.439	1.393	1.223	0.776	0.389	0.532	1.079	2.233	3.614	4.832	2.410
flows	Low	1.317	1.879	1.428	0.481	0.237	0.110	0.028	0.019	0.116	0.069	0.442	2.405	1.640
	High	9.701	8.826	7.477	2.240	4.209	2.491	1.095	1.386	6.671	6.878	7.195	8.122	3.750
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		53.32	61.78	61.46	27.72	19.16	57.13	9.89	27.33	75.12	55.86	57.07	124.40	124.40
Runoff (mm)		123	93	82	32	29	18	9	13	25	53	83	115	675
Rainfall (mm)*		151	106	106	56	70	75	66	81	100	107	131	143	1192

\*(19/0-1983)

Factors affecting flow regime: GE  
Station type: CC1984 runoff is 108% of previous mean  
rainfall 102%

**048004 Warleggan at Trengoffe****1984**Measuring authority: SWWA  
First year: 1969Grid reference: SX 159674  
Level stn. (m OD): 70.26Catchment area (sq km): 25.3  
Max alt. (m OD): 308**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1 579	1 336	0 586	0 403	0 290	0 208	0 151	0 134	0 177	0 395	1 402	1 497	0 680
(m <sup>3</sup> s <sup>-1</sup> )	Peak	3 29	2 66	1 97	0 77	0 80	0 41	0 22	0 28	1 50	1 23	2 56	2 91	3 29
Runoff (mm)		167	132	67	41	31	21	16	14	18	42	144	158	847
Rainfall (mm)		260	109	82	8	74	23	53	79	171	159	250	169	1437

**Monthly and yearly statistics for previous record (Oct 1969 to Dec 1983—incomplete or missing months total 0.3 years)**

Mean	Avg	1 491	1 471	1 107	0 692	0 530	0 423	0 325	0 335	0 446	0 674	0 972	1 373	0 817
flows	Low	0 744	0 751	0 600	0 489	0 288	0 216	0 169	0 118	0 196	0 208	0 233	0 907	0 624
(m <sup>3</sup> s <sup>-1</sup> )	High	2 584	2 906	1 588	1 068	0 978	0 904	0 688	0 563	1 677	1 557	1 775	1 949	1 228
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		14 31	14 85	5 27	4 59	3 19	5 96	4 36	8 60	14 85	7 86	15 38	11 25	15 38
Runoff (mm)		158	142	117	71	56	43	34	35	46	71	100	145	1019
Rainfall (mm)*		187	129	132	66	83	84	87	96	132	137	162	181	1476

\*(1970-1983)

Factors affecting flow regime: G  
Station type: CC1984 runoff is 83% of previous mean  
rainfall: 97%**048005 Kenwyn at Truro****1984**Measuring authority: SWWA  
First year: 1968Grid reference: SW 820450  
Level stn. (m OD): 7.16Catchment area (sq km): 19.1  
Max alt. (m OD): 152**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	0 913	0 717	0 296	0 196	0 124	0 070	0 050	0 054	0 061	0 118	0 671	0 649	0 327
(m <sup>3</sup> s <sup>-1</sup> )	Peak	3 47	2 50	1 07	0 31	0 91	0 17	0 27	2 29	0 72	0 45	3 70	1 74	3 70
Runoff (mm)		128	94	42	27	17	9	7	8	8	17	91	91	539
Rainfall (mm)		219	82	67	6	67	12	54	67	112	112	188	114	1100

**Monthly and yearly statistics for previous record (Oct 1968 to Dec 1983)**

Mean	Avg	0 816	0 818	0 600	0 303	0 203	0 147	0 090	0 085	0 116	0 262	0 457	0 757	0 386
flows	Low	0 283	0 333	0 228	0 162	0 128	0 071	0 043	0 026	0 037	0 034	0 046	0 436	0 264
(m <sup>3</sup> s <sup>-1</sup> )	High	1 322	1 536	0 917	0 524	0 418	0 358	0 162	0 122	0 564	0 633	1 093	1 091	0 544
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		5 88	7 19	5 74	2 93	1 41	3 71	2 79	1 99	4 10	5 94	9 74	13 35	13 35
Runoff (mm)		114	104	84	41	29	20	13	7	16	37	62	106	638
Rainfall (mm)		144	111	100	54	68	64	55	71	93	107	128	145	1140

Factors affecting flow regime: G  
Station type: CC1984 runoff is 84% of previous mean  
rainfall: 96%**048011 Fowey at Restormel two****1984**Measuring authority: SWWA  
First year: 1972Grid reference: SX 098624  
Level stn. (m OD): 9.24Catchment area (sq km): 169.1  
Max alt. (m OD): 420**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	11 770	9 053	2 727	1 808	1 048	0 693	0 563	0 451	0 673	2 496	9 106	8 638	4 086
(m <sup>3</sup> s <sup>-1</sup> )	Peak	25 35	20 57	9 80	3 60	2 76	1 62	1 05	1 04	5 70	7 34	18 14	18 40	25 35
Runoff (mm)		186	134	43	28	17	11	9	7	10	40	140	137	761
Rainfall (mm)		283	116	76	10	73	23	61	77	172	169	248	162	1470

**Monthly and yearly statistics for previous record (Nov 1972 to Dec 1983)**

Mean	Avg	8 880	9 202	6 998	3 737	2 733	1 850	1 184	1 210	2 472	5 257	6 021	9 932	4 940
flows	Low	3 901	4 685	3 402	2 062	1 191	0 750	0 575	0 343	0 723	0 617	0 921	5 796	3 647
(m <sup>3</sup> s <sup>-1</sup> )	High	17 330	21 780	12 130	6 063	6 447	4 916	1 857	2 368	10 490	11 720	15 450	14 260	7 440
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		56 44	95 15	45 62	21 74	16 00	19 07	7 07	31 81	70 02	35 07	61 60	126 60	126 60
Runoff (mm)		141	132	111	57	43	28	19	19	38	83	92	157	922
Rainfall (mm)*		180	137	143	58	91	77	78	89	152	152	149	199	1505

\*(1973-1983)  
Factors affecting flow regime: SRPGEI  
Station type: CC1984 runoff is 83% of previous mean  
rainfall: 98%**049001 Camel at Denby****1984**Measuring authority: SWWA  
First year: 1964Grid reference: SX 017682  
Level stn. (m OD): 4.61Catchment area (sq km): 208.8  
Max alt. (m OD): 420**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	13 800	10 580	4 071	2 811	1 666	1 029	0 735	0 708	1 058	3 138	11 590	12 720	5 325
(m <sup>3</sup> s <sup>-1</sup> )	Peak	39 63	22 79	14 43	5 91	9 40	2 48	1 29	2 25	7 70	8 46	28 43	32 77	39 63
Runoff (mm)		177	127	52	35	21	13	9	9	13	40	144	163	804
Rainfall (mm)		227	99	71	8	80	23	40	63	161	149	276	154	1301

**Monthly and yearly statistics for previous record (Sep 1964 to Dec 1983)**

Mean	Avg	11 260	9 880	7 362	4 175	3 390	2 405	2 246	2 732	2 902	5 311	7 360	11 120	5 790
flows	Low	4 833	4 249	2 835	2 081	0 960	0 888	0 582	0 421	0 798	0 882	1 371	6 552	4 081
(m <sup>3</sup> s <sup>-1</sup> )	High	19 600	20 940	16 420	7 608	8 491	5 463	7 323	5 947	11 920	16 640	17 990	19 110	8 165
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		67 71	80 21	94 75	35 42	23 98	40 02	40 59	45 14	125 80	92 14	79 29	227 90	227 90
Runoff (mm)		144	115	94	52	43	30	29	29	36	68	91	143	875
Rainfall (mm)		171	114	120	71	87	86	95	96	122	131	151	169	1413

Factors affecting flow regime: PGE  
Station type: VA1984 runoff is 92% of previous mean  
rainfall: 92%

**049002 Hayle at St Erth****1984**Measuring authority: SWWA  
First year: 1968Grid reference: SW 549342  
Level stn. (m OD) 7 00Catchment area (sq km): 48.9  
Max alt. (m OD): 238**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.489	2.148	0.927	0.586	0.445	0.373	0.240	0.199	0.193	0.248	0.879	1.536	0.855
(m <sup>3</sup> s <sup>-1</sup> )	Peak	4.90	3.80	1.30	0.88	0.95	0.45	0.34	0.26	0.33	0.41	1.72	2.38	4.90
Runoff (mm)		136	110	51	31	24	20	13	11	10	14	47	84	551
Rainfall (mm)		724	70	59	10	81	6	39	41	119	112	171	121	1053

**Monthly and yearly statistics for previous record (Oct 1957 to Dec 1983—incomplete or missing months total 9.3 years)**

Mean	Avg	1.882	2.062	1.689	1.029	0.675	0.510	0.413	0.348	0.363	0.481	0.901	1.532	0.986
flows	Low	0.746	0.863	0.810	0.573	0.475	0.335	0.237	0.167	0.204	0.179	0.181	0.503	0.653
(m <sup>3</sup> s <sup>-1</sup> )	High	2.849	3.426	2.582	1.641	1.464	0.859	1.063	0.743	1.067	1.140	2.797	2.515	1.258
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		6.20	6.73	5.83	3.07	2.36	1.72	1.99	2.27	1.88	2.32	3.81	6.31	6.73
Runoff (mm)		103	103	93	55	37	27	23	19	19	26	48	84	636
Rainfall (mm)		128	105	102	62	67	63	64	77	95	111	125	140	1139

Factors affecting flow regime: G  
Station type: CC1984 runoff is 87% of previous mean  
rainfall 92%**050002 Torridge at Torrington****1984**Measuring authority: SWWA  
First year: 1962Grid reference: SS 500185  
Level stn. (m OD) 13.95Catchment area (sq km): 663.0  
Max alt. (m OD): 621**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	57.510	30.240	5.792	4.234	1.879	1.093	0.635	0.652	3.775	25.750	52.970	38.590	18.593
(m <sup>3</sup> s <sup>-1</sup> )	Peak	278.40	180.20	37.12	32.10	10.84	2.53	2.44	5.89	48.94	149.30	244.40	128.90	278.40
Runoff (mm)		232	114	23	17	8	4	3	3	15	104	207	156	885
Rainfall (mm)		232	97	53	8	55	21	50	75	167	151	216	134	1259

**Monthly and yearly statistics for previous record (Oct 1962 to Dec 1983)**

Mean	Avg	28.800	24.640	19.340	10.100	9.015	5.004	4.671	4.479	7.202	14.310	24.990	30.760	15.244
flows	Low	5.018	4.695	8.703	3.082	1.594	1.136	0.443	0.253	0.954	0.668	3.798	10.270	8.968
(m <sup>3</sup> s <sup>-1</sup> )	High	53.410	47.590	51.280	28.120	31.290	14.960	21.540	14.260	45.910	49.230	49.410	64.530	21.036
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		391.10	294.40	535.60	153.00	205.70	181.30	310.60	228.50	415.00	225.00	313.20	730.00	730.00
Runoff (mm)		116	91	78	39	36	20	19	18	28	58	98	124	725
Rainfall (mm)		125	91	99	65	77	74	73	80	98	106	133	130	1151

Factors affecting flow regime: SRPGEI  
Station type: VA1984 runoff is 122% of previous mean  
rainfall 109%**052006 Yeo at Pen Mill****1984**Measuring authority: WWA  
First year: 1962Grid reference: ST 573162  
Level stn. (m OD) 23.85Catchment area (sq km): 213.1  
Max alt. (m OD): 252**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	6.915	3.384	2.241	1.355	0.787	0.626	0.323	0.363	0.426	1.077	4.774	4.715	2.249
(m <sup>3</sup> s <sup>-1</sup> )	Peak													
Runoff (mm)		87	40	28	16	10	8	4	5	5	14	58	59	334
Rainfall (mm)		169	48	64	3	81	33	23	48	83	98	153	97	900

**Monthly and yearly statistics for previous record (Nov 1963 to Dec 1983)**

Mean	Avg	5.176	4.664	3.860	1.848	1.695	1.134	0.678	0.690	0.997	2.188	3.382	4.462	2.557
flows	Low	0.485	1.168	0.909	0.532	0.356	0.229	0.193	0.166	0.316	0.372	0.455	1.079	1.093
(m <sup>3</sup> s <sup>-1</sup> )	High	8.612	10.060	7.060	4.223	4.887	2.498	1.909	1.607	5.174	9.808	12.800	9.099	3.594
Peak flow (m <sup>3</sup> s <sup>-1</sup> )														
Runoff (mm)		65	53	49	22	21	14	9	9	12	27	41	56	379
Rainfall (mm)		94	73	80	48	71	62	55	64	79	79	88	98	891

Factors affecting flow regime: R  
Station type: C VA1984 runoff is 88% of previous mean  
rainfall 101%**052007 Parrett at Chiselborough****1984**Measuring authority: WWA  
First year: 1966Grid reference: ST 461144  
Level stn. (m OD) 20.72Catchment area (sq km): 74.8  
Max alt. (m OD): 219**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4.900	1.282	1.013	0.654	0.442	0.364	0.194	0.211	0.145	0.273	2.011	2.264	1.146
(m <sup>3</sup> s <sup>-1</sup> )	Peak	22.86	3.68	9.13	3.98	1.55	1.83	0.22	0.44	0.29	0.81	12.14	11.05	22.86
Runoff (mm)		175	43	36	23	16	13	7	8	5	10	70	81	486
Rainfall (mm)		190	44	65	3	84	35	24	54	75	94	165	95	928

**Monthly and yearly statistics for previous record (Aug 1968 to Dec 1983)**

Mean	Avg	2.251	2.012	1.684	0.760	0.764	0.537	0.371	0.339	0.465	1.119	1.245	1.988	1.125
flows	Low	0.258	0.593	0.523	0.285	0.206	0.130	0.106	0.090	0.193	0.186	0.218	0.523	0.564
(m <sup>3</sup> s <sup>-1</sup> )	High	4.019	3.865	3.055	1.581	1.718	1.053	0.921	0.591	2.225	4.819	3.789	3.917	1.534
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		36.38	22.95	27.46	12.34	21.73	12.81	16.14	7.92	15.29	27.22	29.12	44.94	44.94
Runoff (mm)		81	66	60	26	27	19	13	12	16	40	43	71	475
Rainfall (mm)		103	79	85	43	74	66	54	66	82	87	83	102	924

Factors affecting flow regime: N  
Station type: C1984 runoff is 102% of previous mean  
rainfall 100%

**053004 Chew at Compton Dando****1984**Measuring authority WWA  
First year 1958Grid reference: ST 648647  
Level stn. (m OD) 16 76Catchment area (sq km) 129 5  
Max alt. (m OD) 305**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3 935	2 444	0 951	0 656	0 613	0 461	0 355	0 345	0 456	0 657	2 221	1 837	1 244
	(m <sup>3</sup> s <sup>-1</sup> )													
	Peak	32 54	6 37	3 04	0 89	2 13	0 84	0 61	0 72	5 48	2 20	16 06	7 15	32 54
Runoff (mm)		81	47	20	13	13	9	7	7	9	14	44	38	303
Rainfall (mm)		198	60	54	3	97	32	38	54	164	115	162	113	1090

**Monthly and yearly statistics for previous record (Oct 1958 to Dec 1983—incomplete or missing months total 1.0 years)**

Mean	Avg	1 786	1 680	1 438	0 986	0 830	0 609	0 467	0 432	0 561	0 819	1 176	1 705	1 038
flows	Low	0 444	0 557	0 416	0 469	0 057	0 288	0 251	0 195	0 232	0 302	0 272	0 626	0 545
	(m <sup>3</sup> s <sup>-1</sup> )													
	High	3 765	4 166	4 210	2 185	2 493	1 211	0 811	0 638	2 135	3 251	3 898	5 017	1 767
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		25 49	48 99	50 00	14 19	67 50	13 00	6 23	6 09	59 76	49 56	38 83	63 78	67 50
Runoff (mm)		37	32	30	20	17	12	10	9	11	17	24	35	253
Rainfall (mm)		97	71	81	62	72	71	70	83	95	88	103	113	1006

Factors affecting flow regime SRPGEI  
Station type: FL1984 runoff is 120% of previous mean  
rainfall 108%**053007 Frome(Somerset) at Tellisford****1984**Measuring authority WWA  
First year 1961Grid reference: ST 805564  
Level stn. (m OD) 35 05Catchment area (sq km) 261 6  
Max alt. (m OD) 305**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	12 340	6 941	3 161	1 862	1 578	1 032	0 678	0 648	0 825	1 976	7 691	8 168	3 904
	(m <sup>3</sup> s <sup>-1</sup> )													
	Peak	56 57	31 82	19 54	4 42	6 69	2 11	1 81	6 26	4 05	13 93	35 62	21 94	56 57
Runoff (mm)		126	66	32	18	16	10	6	7	8	20	76	84	471
Rainfall (mm)		176	57	52	3	96	27	38	60	119	99	148	110	985

**Monthly and yearly statistics for previous record (Sep 1961 to Dec 1983)**

Mean	Avg	6 493	6 320	5 822	3 610	2 876	1 929	1 484	1 461	1 797	2 725	4 439	6 372	3 767
flows	Low	1 684	2 072	1 938	1 510	0 843	0 518	0 329	0 290	0 649	0 612	0 962	2 795	2 334
	(m <sup>3</sup> s <sup>-1</sup> )													
	High	10 440	12 460	12 690	8 314	6 317	4 812	4 931	4 605	7 459	8 841	10 730	14 860	4 885
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		77 99	64 75	68 83	57 51	98 80	37 52	108 10	82 49	71 03	40 24	84 58	83 64	108 10
Runoff (mm)		66	59	60	36	29	19	15	15	18	28	44	65	454
Rainfall (mm)		92	70	89	61	77	67	64	79	91	78	95	103	966

Factors affecting flow regime PGEI  
Station type: FL1984 runoff is 104% of previous mean  
rainfall 102%**053009 Wellow Brook at Wellow****1984**Measuring authority WWA  
First year 1966Grid reference: ST 741581  
Level stn. (m OD) 43 74Catchment area (sq km) 72 6  
Max alt. (m OD) 220**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4 128	2 399	1 167	0 814	0 565	0 400	0 293	0 233	0 385	0 881	2 636	2 521	1 389
	(m <sup>3</sup> s <sup>-1</sup> )													
	Peak	17 67	5 24	2 90	1 32	2 31	1 14	1 82	1 40	3 46	2 81	11 47	5 68	17 67
Runoff (mm)		152	83	43	29	21	14	11	9	14	33	94	93	595
Rainfall (mm)		203	66	58	2	95	28	38	48	148	104	159	118	1067

**Monthly and yearly statistics for previous record (Jan 1966 to Dec 1983)**

Mean	Avg	2 199	2 330	1 975	1 235	0 984	0 673	0 482	0 391	0 515	0 948	1 420	2 086	1 265
flows	Low	0 641	0 895	0 688	0 600	0 328	0 244	0 157	0 119	0 199	0 224	0 274	1 104	0 782
	(m <sup>3</sup> s <sup>-1</sup> )													
	High	3 142	4 429	3 708	2 111	1 907	1 306	1 680	0 727	2 008	2 686	2 916	3 542	1 581
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		15 11	22 36	13 71	11 08	23 16	6 84	29 54	3 79	15 07	7 88	14 59	27 43	29 54
Runoff (mm)		81	78	73	44	36	24	18	14	18	35	51	77	550
Rainfall (mm)		100	87	93	61	81	73	62	76	97	86	100	107	1023

Factors affecting flow regime PGEI  
Station type: FL1984 runoff is 108% of previous mean  
rainfall 104%**053018 Avon at Bathford****1984**Measuring authority WWA  
First year 1969Grid reference: ST 786671  
Level stn. (m OD) 18 00Catchment area (sq km) 1552 0  
Max alt. (m OD) 305**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	51 270	29 240	15 080	9 870	7 351	5 446	3 413	2 977	4 545	7 526	34 630	33 490	17 070
	(m <sup>3</sup> s <sup>-1</sup> )													
	Peak	166 90	79 20	47 33	16 34	21 34	9 91	5 05	9 28	22 14	28 35	118 60	68 49	166 90
Runoff (mm)		88	47	26	16	13	9	6	5	8	13	58	58	347
Rainfall (mm)		148	46	51	2	81	23	32	55	130	80	134	97	879

**Monthly and yearly statistics for previous record (Dec 1969 to Dec 1983)**

Mean	Avg	30 950	32 340	28 200	16 580	13 350	10 580	6 221	5 805	6 959	11 280	17 840	28 340	17 305
flows	Low	9 225	11 370	10 080	7 718	5 047	3 898	2 411	1 715	3 748	3 117	4 407	12 120	10 361
	(m <sup>3</sup> s <sup>-1</sup> )													
	High	45 300	64 340	54 220	27 690	31 020	30 110	9 955	10 600	25 450	28 180	35 060	48 770	22 133
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		158 90	226 50	193 30	119 60	227 00	165 60	54 93	64 71	191 90	88 98	163 10	300 50	300 50
Runoff (mm)		53	51	49	28	23	18	11	10	12	19	30	49	352
Rainfall (mm)*		84	63	81	49	62	68	52	63	81	68	79	89	839

\*(1970-1983)

Factors affecting flow regime RPGE  
Station type: VA1984 runoff is 99% of previous mean  
rainfall 105%

**054006 Stour at Kidderminster****1984**Measuring authority: STWA  
First year: 1953Grid reference: SO 829768  
Level stn. (m OD) 30.50Catchment area (sq km): 324.0  
Max alt. (m OD): 316**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3.928	3.305	3.167	2.047	2.277	2.363	2.523	2.564	2.566	2.454	5.562	3.314	3.006
(m <sup>3</sup> s <sup>-1</sup> )	Peak	8.72	8.53	12.58	2.72	13.13	8.40	6.96	10.73	9.77	7.33	16.44	11.06	16.44
Runoff (mm)		37	26	26	16	19	19	21	21	21	20	44	27	293
Rainfall (mm)		84	38	60	5	59	46	22	73	99	59	178	50	723

**Monthly and yearly statistics for previous record (Oct 1953 to Dec 1983)**

Mean flows	Avg	3.637	3.458	3.349	2.750	2.633	2.317	2.116	2.783	2.356	2.454	2.911	3.397	2.802
(m <sup>3</sup> s <sup>-1</sup> )	Low	1.703	1.527	1.763	1.344	1.424	1.128	1.049	0.895	1.368	1.335	1.576	1.537	1.865
	High	7.409	6.537	6.244	4.844	6.468	3.438	4.404	3.801	4.058	5.713	6.386	7.062	4.136
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		67.96	70.96	81.55	16.90	20.94	18.52	19.20	34.50	19.40	22.96	15.01	45.46	81.55
Runoff (mm)		30	26	28	22	22	19	17	19	19	20	23	28	273
Rainfall (mm)		62	49	54	49	63	55	59	69	67	57	63	68	715

Factors affecting flow regime: GEI  
Station type: VA1984 runoff is 107% of previous mean  
rainfall 101%**054008 Teme at Tenbury****1984**Measuring authority: STWA  
First year: 1956Grid reference: SO 597686  
Level stn. (m OD) 48.00Catchment area (sq km): 1134.4  
Max alt. (m OD): 546**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	43.660	33.070	16.360	7.367	4.087	3.724	1.846	1.591	2.465	9.417	40.380	30.070	16.189
(m <sup>3</sup> s <sup>-1</sup> )	Peak	118.20	117.00	68.56	18.15	11.92	9.78	2.53	3.71	8.82	29.03	138.40	84.66	138.40
Runoff (mm)		103	73	39	17	10	9	4	4	6	22	92	71	449
Rainfall (mm)		133	60	60	7	56	53	22	76	124	84	152	77	904

**Monthly and yearly statistics for previous record (Oct 1956 to Dec 1983)**

Mean flows	Avg	27.610	24.900	22.190	13.960	11.400	6.165	4.222	4.155	6.593	11.640	15.950	24.650	14.415
(m <sup>3</sup> s <sup>-1</sup> )	Low	6.281	8.009	7.433	4.692	2.571	1.558	1.008	0.745	1.085	1.347	3.085	5.565	7.278
	High	51.620	56.000	51.940	28.630	35.380	13.090	21.920	16.680	29.650	43.130	50.140	57.290	23.488
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		256.60	191.80	165.40	121.50	200.30	79.52	114.10	158.00	196.20	232.80	168.30	266.50	266.50
Runoff (mm)		65	53	52	32	27	14	10	10	15	27	36	58	401
Rainfall (mm)		85	65	70	59	66	57	58	72	85	72	81	92	862

Factors affecting flow regime: N  
Station type: VA1984 runoff is 112% of previous mean  
rainfall 105%**054012 Tern at Walcot****1984**Measuring authority: STWA  
First year: 1960Grid reference: SJ 592123  
Level stn. (m OD) 44.60Catchment area (sq km): 852.0  
Max alt. (m OD): 366**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	11.020	10.840	6.610	4.652	3.537	3.787	2.064	2.640	2.918	3.198	15.190	10.000	6.371
(m <sup>3</sup> s <sup>-1</sup> )	Peak	25.95	26.45	15.61	7.50	6.47	11.49	3.57	3.96	4.25	5.26	44.54	21.86	44.54
Runoff (mm)		35	32	21	14	11	12	6	8	9	10	46	31	235
Rainfall (mm)		81	42	47	9	52	55	25	55	89	58	140	53	706

**Monthly and yearly statistics for previous record (Oct 1960 to Dec 1983)**

Mean flows	Avg	11.030	10.560	9.104	7.162	6.852	4.656	4.045	3.866	4.089	5.795	7.854	10.790	7.138
(m <sup>3</sup> s <sup>-1</sup> )	Low	4.018	4.002	4.800	3.557	2.917	2.199	1.393	1.171	1.680	2.227	2.538	3.563	3.757
	High	20.320	22.280	17.810	12.320	27.390	9.069	14.060	6.655	9.490	16.920	21.830	24.950	10.266
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		45.31	45.98	40.53	40.73	40.35	27.00	48.71	38.53	30.30	37.38	43.33	55.82	55.82
Runoff (mm)		35	30	29	22	22	14	13	12	12	18	24	34	264
Rainfall (mm)		59	48	54	51	66	55	55	62	67	59	68	68	712

Factors affecting flow regime: G  
Station type: FV1984 runoff is 89% of previous mean  
rainfall 99%**054019 Avon at Stareton****1984**Measuring authority: STWA  
First year: 1962Grid reference: SP 333715  
Level stn. (m OD) 54.71Catchment area (sq km): 347.0  
Max alt. (m OD): 210**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5.675	5.703	3.728	1.283	0.933	0.784	0.413	0.555	0.629	0.722	3.601	3.031	2.255
(m <sup>3</sup> s <sup>-1</sup> )	Peak	27.11	28.26	18.99	3.17	4.47	1.89	1.15	2.11	1.78	2.21	25.28	5.51	28.26
Runoff (mm)		44	41	29	10	7	6	3	4	5	6	27	23	204
Rainfall (mm)		89	51	54	6	60	49	24	56	79	65	105	45	683

**Monthly and yearly statistics for previous record (Oct 1962 to Dec 1983)**

Mean flows	Avg	4.281	4.554	4.346	2.703	2.341	1.274	1.044	1.093	1.076	1.558	2.168	3.885	2.520
(m <sup>3</sup> s <sup>-1</sup> )	Low	0.798	0.777	0.545	0.485	0.474	0.368	0.247	0.356	0.442	0.507	0.549	0.667	1.094
	High	8.143	12.890	8.577	5.558	6.149	3.202	5.379	3.332	2.858	5.274	5.311	10.400	3.588
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		38.23	59.60	55.89	42.67	39.05	27.34	71.36	26.08	16.59	32.89	34.11	56.28	71.36
Runoff (mm)		33	32	34	20	18	10	8	8	8	12	16	30	229
Rainfall (mm)		52	46	56	49	59	57	54	69	56	49	55	61	663

Factors affecting flow regime: S E1  
Station type: C1984 runoff is 89% of previous mean  
rainfall 103%



**054020 Perry at Yeaton****1984**Measuring authority: STWA  
First year: 1963Grid reference: SJ 434192  
Level stn. (m OD): 61.27Catchment area (sq km): 180.8  
Max alt. (m OD): 356**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3 821	2 865	1 484	1 040	0 730	0 583	0 358	0 436	0 497	0 637	3 103	2 642	1 518
(m <sup>3</sup> s <sup>-1</sup> )	Peak	8 00	6 93	2 71	1 50	1 24	0 98	0 48	0 64	1 14	1 26	8 59	6 06	8 59
Runoff (mm)		57	40	22	15	11	8	5	6	7	9	44	39	264
Rainfall (mm)		111	42	38	9	44	42	15	64	103	71	142	68	749

**Monthly and yearly statistics for previous record (Oct 1963 to Dec 1983)**

Mean	Avg	2 838	2 778	2 487	1 668	1 529	0 993	0 777	0 749	0 766	1 184	1 776	2 677	1 681
flows	Low	0 901	0 859	1 257	0 742	0 583	0 379	0 271	0 208	0 350	0 412	0 427	0 848	0 809
(m <sup>3</sup> s <sup>-1</sup> )	High	4 777	6 507	4 265	3 041	4 732	2 046	2 735	1 416	1 785	3 308	2 886	6 244	2 335
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		11 50	11 29	11 12	8 57	10 41	8 49	7 87	5 49	7 32	7 25	10 02	12 57	12 57
Runoff (mm)		42	37	37	24	23	14	12	11	11	18	25	40	293
Rainfall (mm)		66	56	64	48	67	57	60	62	71	64	77	79	771

Factors affecting flow regime: N G  
Station type: C1984 runoff is 90% of previous mean  
rainfall: 97%**054022 Severn at Plynlimon flume****1984**Measuring authority: IH  
First year: 1953Grid reference: SN 853872  
Level stn. (m OD): 331.00Catchment area (sq km): 8.7  
Max alt. (m OD): 740**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1 075	0 739	0 171	0 088	0 048	0 066	0 054	0 077	0 519	0 859	0 914	0 712	0 443
(m <sup>3</sup> s <sup>-1</sup> )	Peak	9 88	6 16	0 97	0 13	0 46	0 25	0 14	1 65	3 45	6 93	8 20	6 42	9 88
Runoff (mm)		331	213	53	26	15	20	17	24	155	265	272	219	1 608
Rainfall (mm)		393	201	65	19	58	80	39	138	268	304	311	241	2 117

**Monthly and yearly statistics for previous record (Oct 1953 to Dec 1983—incomplete or missing months total 10.8 years)**

Mean	Avg	0 748	0 584	0 604	0 321	0 258	0 207	0 285	0 382	0 525	0 606	0 782	0 737	0 503
flows	Low	0 382	0 136	0 189	0 046	0 048	0 045	0 060	0 037	0 073	0 059	0 268	0 174	0 334
(m <sup>3</sup> s <sup>-1</sup> )	High	1 571	1 104	1 567	0 878	0 818	0 455	0 754	0 899	1 092	1 463	1 307	1 304	0 846
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		12 19	14 00	14 53	11 64	9 86	7 67	8 84	24 99	12 91	17 22	17 76	17 11	24 99
Runoff (mm)		230	163	186	96	80	62	88	118	156	187	233	227	1 825
Rainfall (mm)		283	179	213	130	143	131	154	180	233	257	285	292	2 480

Factors affecting flow regime: N  
Station type: FL1984 runoff is 88% of previous mean  
rainfall: 85%**055008 Wye at Cefn Brwyn****1984**Measuring authority: IH  
First year: 1951Grid reference: SN 829838  
Level stn. (m OD): 341.01Catchment area (sq km): 10.4  
Max alt. (m OD): 752**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1 506	0 930	0 206	0 093	0 057	0 108	0 053	0 119	0 817	1 123	1 064	0 997	0 589
(m <sup>3</sup> s <sup>-1</sup> )	Peak	11 17	6 61	1 16	0 19	0 38	0 43	0 13	2 11	5 43	9 33	8 54	9 59	11 17
Runoff (mm)		388	224	53	23	15	27	14	31	204	289	265	257	1 789
Rainfall (mm)		418	209	71	19	63	82	41	143	298	315	312	248	2 219

**Monthly and yearly statistics for previous record (Aug 1951 to Dec 1983—incomplete or missing months total 2.5 years)**

Mean	Avg	0 944	0 762	0 663	0 524	0 418	0 341	0 442	0 567	0 681	0 796	1 039	1 101	0 890
flows	Low	0 519	0 158	0 290	0 064	0 054	0 074	0 095	0 036	0 050	0 092	0 376	0 198	0 447
(m <sup>3</sup> s <sup>-1</sup> )	High	1 870	1 486	1 735	1 312	1 144	0 844	1 264	1 478	1 478	2 031	1 600	2 655	0 994
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		23 47	19 20	16 97	19 12	17 89	25 49	19 11	48 87	16 93	24 32	29 15	32 00	48 87
Runoff (mm)		243	178	171	131	108	85	114	146	170	205	259	283	2 092
Rainfall (mm)		257	171	194	149	139	139	164	192	209	238	270	303	2 425

Factors affecting flow regime:  
Station type: CC1984 runoff is 86% of previous mean  
rainfall: 92%**055013 Arrow at Titley Mill****1984**Measuring authority: WELS  
First year: 1966Grid reference: SO 328585  
Level stn. (m OD): 129.02Catchment area (sq km): 126.4  
Max alt. (m OD): 542**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	7 505	5 148	1 669	1 004	0 526	0 417	0 243	0 231	0 353	1 568	6 261	4 083	2 417
(m <sup>3</sup> s <sup>-1</sup> )	Peak	25 87	28 72	4 59	1 83	0 93	0 91	0 41	1 53	1 22	6 03	28 98	12 29	28 98
Runoff (mm)		159	102	35	21	11	9	5	5	7	33	128	87	602
Rainfall (mm)		206	75	62	7	60	44	27	81	147	113	183	95	1 100

**Monthly and yearly statistics for previous record (Oct 1966 to Dec 1983)**

Mean	Avg	4 694	4 218	3 847	2 045	1 981	1 185	0 788	0 601	0 914	2 032	2 889	4 306	2 453
flows	Low	1 886	1 936	1 629	0 962	0 549	0 332	0 211	0 154	0 277	0 294	0 662	1 694	1 309
(m <sup>3</sup> s <sup>-1</sup> )	High	9 003	7 677	8 933	4 176	5 001	2 559	3 842	1 182	2 459	6 916	5 682	7 566	3 418
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		63 98	39 94	57 85	19 41	32 49	13 09	30 88	9 59	18 85	36 45	25 96	63 34	63 98
Runoff (mm)		99	81	82	42	42	24	17	13	19	43	59	91	612
Rainfall (mm)		106	84	90	57	79	65	51	73	98	87	95	111	996

Factors affecting flow regime: P  
Station type: VA1984 runoff is 98% of previous mean  
rainfall: 110%

**055014 Lugg at Byton****1984**Measuring authority: WELS  
First year: 1966Grid reference: SO 364647  
Level stn. (m OD) 124.07Catchment area (sq km): 203.3  
Max alt. (m OD): 660**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	11.940	9.268	3.428	2.146	1.186	0.899	0.603	0.617	0.721	1.897	8.774	7.117	4.050
(m <sup>3</sup> s <sup>-1</sup> ):	Peak	25.78	26.60	8.76	3.86	1.43	1.76	0.77	2.98	1.36	4.88	27.22	16.46	27.22
Runoff (mm)		157	114	45	27	16	11	8	9	25	112	94	827	
Rainfall (mm)		201	82	64	6	60	48	25	77	131	110	167	102	1073

**Monthly and yearly statistics for previous record (Oct 1966 to Dec 1983)**

Mean	Avg	7.288	6.950	6.289	3.852	3.481	2.073	1.462	1.143	1.368	2.845	4.232	6.393	3.937
flows	Low	2.991	2.630	2.947	2.016	1.202	0.772	0.557	0.414	0.678	0.657	1.219	2.978	2.321
(m <sup>3</sup> s <sup>-1</sup> ):	High	11.270	12.870	13.980	7.106	7.994	3.989	5.253	1.992	3.079	7.962	8.636	10.350	4.954
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		54.27	37.53	33.24	17.61	45.56	10.72	26.16	9.52	12.46	28.51	19.98	37.49	54.27
Runoff (mm)		96	83	83	49	46	26	19	15	17	37	54	84	611
Rainfall (mm)		114	87	94	62	84	63	55	73	99	88	97	114	1030

Factors affecting flow regime:  
Station type: FVVA1984 runoff is 103% of previous mean  
rainfall 104%**055018 Frome at Yarkhill****1984**Measuring authority: WELS  
First year: 1968Grid reference: SO 615428  
Level stn. (m OD) 55.38Catchment area (sq km): 144.0  
Max alt. (m OD): 244**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2.987	1.842	1.676	0.795	0.541	0.366	0.196	0.150	0.174	0.222	2.265	2.130	1.112
(m <sup>3</sup> s <sup>-1</sup> ):	Peak	15.96	7.26	10.21	1.59	1.22	1.01	0.25	0.47	0.36	0.72	18.51	6.97	18.51
Runoff (mm)		56	32	31	14	10	7	4	3	3	4	41	40	244
Rainfall (mm)		92	33	58	6	62	46	11	63	103	76	130	63	743

**Monthly and yearly statistics for previous record (Oct 1968 to Dec 1983—incomplete or missing months total 0.1 years)**

Mean	Avg	2.633	2.632	2.432	1.142	1.203	0.647	0.362	0.333	0.349	0.537	0.900	2.008	1.260
flows	Low	0.214	0.389	0.560	0.359	0.274	0.146	0.091	0.063	0.197	0.155	0.171	0.210	0.672
(m <sup>3</sup> s <sup>-1</sup> ):	High	4.668	5.456	5.176	2.298	3.972	1.349	0.630	0.538	0.970	2.405	2.209	3.594	1.628
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		23.84	24.99	24.28	14.74	25.89	16.99	5.96	6.04	15.68	10.34	13.47	25.14	25.89
Runoff (mm)		49	45	45	21	22	12	7	6	6	10	16	37	276
Rainfall (mm)		73	55	66	45	63	55	46	66	67	53	60	73	722

Factors affecting flow regime: E  
Station type: VA1984 runoff is 88% of previous mean  
rainfall 103%**055023 Wye at Redbrook****1984**Measuring authority: WELS  
First year: 1969Grid reference: SO 528110  
Level stn. (m OD) 9.20Catchment area (sq km): 4010.0  
Max alt. (m OD): 752**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	202.900	135.500	44.350	26.980	18.840	14.020	8.227	8.793	28.320	77.820	177.500	137.200	73.371
(m <sup>3</sup> s <sup>-1</sup> ):	Peak	478.30	441.00	119.60	47.87	27.15	22.45	12.43	22.92	96.72	227.20	498.80	355.00	498.80
Runoff (mm)		136	85	30	17	13	9	5	6	18	52	115	92	577
Rainfall (mm)		185	70	58	6	67	41	19	73	134	121	176	89	1039

**Monthly and yearly statistics for previous record (Oct 1969 to Dec 1983)**

Mean	Avg	130.200	125.800	108.200	60.920	46.230	32.050	20.900	23.590	31.140	53.110	85.800	119.600	69.583
flows	Low	56.630	46.880	37.490	25.450	16.470	10.960	7.433	5.178	14.870	12.230	33.900	46.890	45.669
(m <sup>3</sup> s <sup>-1</sup> ):	High	214.400	234.000	245.500	100.200	125.000	63.490	30.850	40.110	74.490	133.800	163.600	204.100	91.002
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		447.40	423.30	671.30	226.50	358.70	178.00	53.37	73.66	261.30	353.90	417.20	501.70	671.30
Runoff (mm)		98	50	102	41	49	26	14	12	31	50	56	87	615
Rainfall (mm)		117	85	94	59	74	65	53	77	95	80	103	115	1017

Factors affecting flow regime: S P E  
Station type: VA1984 runoff is 94% of previous mean  
rainfall 102%**056013 Yscir at Pontaryscir****1984**Measuring authority: WELS  
First year: 1972Grid reference: SO 003304  
Level stn. (m OD) 161.18Catchment area (sq km): 62.8  
Max alt. (m OD): 474**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5.795	3.292	0.852	0.486	0.310	0.410	0.150	0.134	0.893	2.669	4.924	2.782	1.891
(m <sup>3</sup> s <sup>-1</sup> ):	Peak	36.98	22.52	2.69	0.85	1.97	2.21	0.32	0.33	4.31	14.31	30.29	9.05	36.98
Runoff (mm)		247	131	36	20	13	17	6	6	37	114	203	119	950
Rainfall (mm)		286	108	60	8	83	55	32	94	173	182	264	125	1470

**Monthly and yearly statistics for previous record (May 1972 to Dec 1983—incomplete or missing months total 0.2 years)**

Mean	Avg	3.276	2.774	2.774	1.242	1.116	0.689	0.454	0.561	1.224	1.998	2.952	3.598	1.885
flows	Low	1.146	1.868	1.170	0.431	0.269	0.214	0.166	0.104	0.283	0.214	1.475	2.196	1.286
(m <sup>3</sup> s <sup>-1</sup> ):	High	5.578	4.959	6.303	2.357	3.041	1.788	1.117	1.250	3.947	4.182	4.902	6.324	2.465
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		33.31	31.78	40.55	12.19	14.81	74.33	11.06	28.81	21.44	29.06	30.35	59.93	74.33
Runoff (mm)		140	107	118	51	48	28	19	24	51	85	122	153	947
Rainfall (mm)*		156	112	145	66	86	69	73	92	154	133	153	184	1423

\*(1973:1983)

Factors affecting flow regime: N  
Station type: C1984 runoff is 100% of previous mean  
rainfall 103%

**057008 Rhymney at Llanederyn****1984**Measuring authority: WELS  
First year: 1972Grid reference: ST 225821  
Level stn: (m OD) 11.78Catchment area (sq km): 178.7  
Max alt: (m OD) 617**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	17 200	9 774	2 889	1 754	1 276	1 172	0 697	0 704	1 468	7 424	14 630	9 455	5 704
(m <sup>3</sup> s <sup>-1</sup> )	Peak	97 13	51 98	14 36	2 66	3 32	6 70	1 14	3 43	20 26	83 82	106 50	35 14	106 50
Runoff (mm)		258	137	43	25	19	17	10	11	21	111	212	147	1007
Rainfall (mm)		275	108	54	9	59	44	22	52	162	218	262	146	1411

**Monthly and yearly statistics for previous record (Jan 1973 to Dec 1983)**

Mean	Avg	8 588	7 908	7 804	3 607	3 140	1 911	1 398	1 882	3 956	5 870	7 368	8 996	5 193
flows	Low	3 313	3 199	3 064	1 841	1 302	0 873	0 602	0 571	0 914	0 748	2 355	3 218	2 903
(m <sup>3</sup> s <sup>-1</sup> )	High	15 310	15 620	20 960	5 105	8 340	4 604	2 332	3 812	11 500	13 700	15 430	15 730	7 153
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		100 10	72 22	105 80	32 30	26 05	32 92	27 39	79 27	101 60	118 50	92 69	147 30	147 30
Runoff (mm)		129	108	117	52	47	28	21	28	57	88	107	135	917
Rainfall (mm)		153	116	135	60	85	63	63	93	160	131	143	163	1365

Factors affecting flow regime: PGE  
Station type: FVVA1984 runoff is 110% of previous mean  
rainfall 103%**058006 Mellte at Pontneathvaughan****1984**Measuring authority: WELS  
First year: 1971Grid reference: SN 915082  
Level stn: (m OD) 29.10Catchment area (sq km): 65.8  
Max alt: (m OD) 734**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	8 013	4 564	1 378	0 612	0 383	0 557	0 242	0 207	1 488	5 283	6 184	4 065	2 748
(m <sup>3</sup> s <sup>-1</sup> )	Peak	76 53	29 97	16 87	1 02	1 30	3 34	0 50	0 39	16 15	51 45	38 23	17 34	76 53
Runoff (mm)		376	174	56	24	16	22	10	8	59	215	244	165	1319
Rainfall (mm)		390	176	83	12	65	66	45	78	224	323	321	194	1977

**Monthly and yearly statistics for previous record (Oct 1971 to Dec 1983—incomplete or missing months total 0.3 years)**

Mean	Avg	4 794	3 815	3 960	1 875	1 719	1 076	0 928	1 379	2 644	3 150	4 716	5 141	2 930
flows	Low	1 932	2 073	1 442	0 497	0 394	0 322	0 318	0 248	0 562	0 548	2 549	2 641	1 985
(m <sup>3</sup> s <sup>-1</sup> )	High	8 274	7 231	10 670	3 812	3 233	3 559	2 608	3 357	6 876	6 305	7 875	8 739	3 814
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		82 30	66 12	72 93	39 02	21 45	32 54	39 14	58 52	81 01	96 78	79 82	127 60	127 60
Runoff (mm)		195	141	161	74	70	42	38	56	104	128	186	209	1405
Rainfall (mm)		243	161	196	95	121	103	93	139	192	189	236	248	2016

Factors affecting flow regime: SP  
Station type: FVVA1984 runoff is 94% of previous mean  
rainfall 98%**059001 Tawe at Ynys Tanglws****1984**Measuring authority: WELS  
First year: 1957Grid reference: SS 685998  
Level stn: (m OD) 9.31Catchment area (sq km): 227.7  
Max alt: (m OD) 802**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	28 530	14 550	4 182	2 280	1 603	2 228	1 032	1 305	8 862	22 250	23 230	20 100	10 846
(m <sup>3</sup> s <sup>-1</sup> )	Peak	157 50	83 30	34 90	3 17	9 49	18 53	3 05	6 86	71 68	183 10	152 00	92 80	183 10
Runoff (mm)		336	160	49	26	19	25	12	15	101	262	264	236	1506
Rainfall (mm)		318	125	47	9	59	54	52	91	235	306	288	215	1799

**Monthly and yearly statistics for previous record (Oct 1957 to Dec 1983—incomplete or missing months total 0.7 years)**

Mean	Avg	18 610	13 880	11 680	8 430	7 576	4 987	4 915	6 971	10 250	13 350	16 570	17 950	11 258
flows	Low	1 479	2 445	3 175	2 145	1 650	1 354	1 311	1 280	0 574	2 587	8 358	3 931	7 613
(m <sup>3</sup> s <sup>-1</sup> )	High	36 580	29 040	41 630	15 370	17 980	15 960	9 480	14 200	26 290	43 430	33 320	43 650	15 158
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		275 10	322 80	270 20	188 60	147 50	214 10	131 90	261 80	286 00	314 30	290 60	461 30	461 30
Runoff (mm)		219	149	137	96	89	57	58	82	117	157	189	211	1560
Rainfall (mm)		203	138	142	111	119	108	111	135	175	190	204	217	1853

Factors affecting flow regime: GEI  
Station type: VA1984 runoff is 97% of previous mean  
rainfall 97%**060003 Taf at Clog-y-fran****1984**Measuring authority: WELS  
First year: 1965Grid reference: SN 238160  
Level stn: (m OD) 7.01Catchment area (sq km): 217.3  
Max alt: (m OD): 385**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	15 020	9 808	3 928	2 179	1 207	0 781	0 375	0 386	1 271	10 180	17 160	15 640	6 495
(m <sup>3</sup> s <sup>-1</sup> )	Peak	40 63	30 64	18 25	3 21	2 42	2 30	0 61	1 91	22 60	60 58	42 03	42 15	60 58
Runoff (mm)		185	113	48	26	15	9	5	5	15	125	205	193	944
Rainfall (mm)		197	87	51	10	46	28	36	68	189	210	230	207	1359

**Monthly and yearly statistics for previous record (Oct 1965 to Dec 1983—incomplete or missing months total 0.8 years)**

Mean	Avg	13 020	11 370	8 775	5 383	4 211	2 752	1 753	2 160	3 950	9 611	11 330	13 800	7 328
flows	Low	4 835	5 454	3 796	2 267	1 437	0 814	0 527	0 363	0 983	1 018	3 757	9 027	4 872
(m <sup>3</sup> s <sup>-1</sup> )	High	25 900	27 200	26 610	11 800	8 412	8 821	5 330	4 785	15 340	22 310	22 690	25 520	9 662
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		73 43	73 97	85 73	60 03	31 15	45 11	19 86	32 90	58 02	84 98	80 82	65 55	85 73
Runoff (mm)		161	127	108	64	52	33	22	27	47	118	135	170	1064
Rainfall (mm)		159	115	119	81	88	79	70	95	133	161	152	174	1426

Factors affecting flow regime: N  
Station type: VA1984 runoff is 89% of previous mean  
rainfall 95%

**061003 Gwaun at Cilrhedyn Bridge****1984**Measuring authority: WELS  
First year: 1968Grid reference: SN 005349  
Level stn. (m OD) 70.31Catchment area (sq km): 31.3  
Max alt. (m OD): 468**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	2 067	1 488	0 700	0 399	0 255	0 178	0 108	0 144	0 360	1 567	2 438	2 546	1 021
(m <sup>3</sup> s <sup>-1</sup> )	Peak	7.19	5.33	4.87	0.72	1.57	0.45	0.20	0.59	3.89	7.26	7.17	8.21	8.21
Runoff (mm)		177	119	60	33	27	15	9	12	30	134	202	218	1031
Rainfall (mm)		196	77	61	17	56	28	34	87	179	202	277	221	1380

**Monthly and yearly statistics for previous record (Apr 1969 to Dec 1983—incomplete or missing months total 0.1 years)**

Mean	Avg	1.921	1.718	1.435	0.772	0.607	0.506	0.301	0.496	0.607	1.371	1.748	2.017	1.122
flows	Low	0.859	0.751	0.576	0.352	0.231	0.191	0.116	0.073	0.288	0.271	0.605	1.487	0.802
(m <sup>3</sup> s <sup>-1</sup> )	High	3.898	4.108	3.668	1.298	1.248	1.600	0.712	1.366	1.630	3.462	3.080	2.851	1.392
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		22.52	21.10	16.70	13.51	7.23	18.35	7.03	23.48	15.64	16.13	20.03	20.59	23.48
Runoff (mm)		164	134	123	64	51	42	26	42	50	117	145	173	1132
Rainfall (mm)*		174	123	134	82	87	84	76	105	146	173	175	176	1530

\*(1970-1983)

Factors affecting flow regime:  
Station type: VA1984 runoff is 91% of previous mean  
rainfall 90%**063001 Ystwyth at Pont Llwlwyn****1984**Measuring authority: WELS  
First year: 1963Grid reference: SN 591774  
Level stn. (m OD) 11.98Catchment area (sq km): 169.6  
Max alt. (m OD): 611**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	12 410	8 478	2 816	1 173	0 578	0 699	0 439	0 424	5 504	9 238	12 740	10 450	5 412
(m <sup>3</sup> s <sup>-1</sup> )	Peak	37.86	39.14	16.00	2.06	0.68	1.24	0.67	0.67	30.57	36.36	44.79	38.40	44.79
Runoff (mm)		196	125	44	18	9	11	7	7	84	146	195	165	1007
Rainfall (mm)		208	104	49	15	49	62	42	80	228	189	236	190	1452

**Monthly and yearly statistics for previous record (Oct 1963 to Dec 1983—incomplete or missing months total 0.3 years)**

Mean	Avg	9.383	7.252	6.289	4.270	3.621	2.458	2.493	3.218	4.457	7.165	9.370	10.830	5.895
flows	Low	2.268	2.283	2.901	0.961	0.583	0.625	0.422	0.181	0.882	0.535	4.069	2.219	3.783
(m <sup>3</sup> s <sup>-1</sup> )	High	15.330	15.200	18.470	10.080	10.100	6.012	5.461	6.934	10.670	19.800	18.320	22.600	7.775
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		105.60	88.63	126.70	90.32	105.10	129.70	68.24	174.30	71.02	129.90	128.10	210.40	210.40
Runoff (mm)		148	104	99	65	57	38	39	51	68	113	143	171	1097
Rainfall (mm)		152	105	118	84	97	89	94	107	134	147	167	175	1469

Factors affecting flow regime:  
Station type: VA1984 runoff is 92% of previous mean  
rainfall 99%**064001 Dovey at Dovey Bridge****1984**Measuring authority: WELS  
First year: 1962Grid reference: SH 745019  
Level stn. (m OD) 5.89Catchment area (sq km): 471.3  
Max alt. (m OD): 905**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	48 210	28 500	5 789	2 626	1 295	1 619	0 821	2 247	17 450	39 070	47 060	30 780	18 372
(m <sup>3</sup> s <sup>-1</sup> )	Peak	245.00	173.90	13.78	4.61	3.97	5.70	1.35	24.65	54.96	229.60	210.30	103.20	245.00
Runoff (mm)		274	152	33	14	7	9	5	13	96	222	231	175	1231
Rainfall (mm)		301	142	56	14	42	64	31	129	213	269	253	189	1703

**Monthly and yearly statistics for previous record (Oct 1962 to Dec 1983—incomplete or missing months total 9.8 years)**

Mean	Avg	33 780	23 340	28 550	17 480	13 860	11 080	8 315	11 440	19 370	30 830	34 340	42 760	22 951
flows	Low	6.245	5.174	11.770	5.800	3.211	2.518	2.910	1.819	6.595	10.770	14.530	7.501	18.588
(m <sup>3</sup> s <sup>-1</sup> )	High	68.810	46.060	75.790	42.490	23.600	21.770	14.090	24.050	34.110	76.960	62.790	88.280	25.700
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		350.20	340.00	360.70	271.30	337.20	402.10	162.00	210.00	254.90	344.00	375.50	580.50	580.50
Runoff (mm)		192	120	162	96	79	61	47	65	107	175	189	243	1536
Rainfall (mm)		194	130	157	111	115	106	107	130	172	179	215	230	1846

Factors affecting flow regime: N  
Station type: VA1984 runoff is 80% of previous mean  
rainfall 92%**064002 Dysynni at Pont-y-garth****1984**Measuring authority: WELS  
First year: 1966Grid reference: SH 632066  
Level stn. (m OD) 2.26Catchment area (sq km): 75.1  
Max alt. (m OD): 892**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	8 756	4 260	0 986	0 457	0 298	0 427	0 278	0 589	3 334	8 002	8 188	7 743	3 610
(m <sup>3</sup> s <sup>-1</sup> )	Peak	51.46	20.31	1.59	0.62	0.46	1.64	0.37	2.83	11.67	32.58	27.11	23.74	61.46
Runoff (mm)		312	142	35	16	11	15	10	21	115	285	283	276	1521
Rainfall (mm)		280	116	39	17	51	78	42	121	238	293	264	258	1797

**Monthly and yearly statistics for previous record (Jan 1966 to Dec 1983—incomplete or missing months total 1.3 years)**

Mean	Avg	5 660	4 969	4 779	3 245	2 591	2 245	2 527	2 864	3 822	5 540	6 691	6 520	4 286
flows	Low	3.371	2.622	2.159	0.677	0.430	0.555	0.547	0.289	0.458	0.556	3.011	2.770	3.593
(m <sup>3</sup> s <sup>-1</sup> )	High	11.040	8.809	14.780	7.209	7.602	5.971	5.407	5.137	7.285	12.350	10.750	10.750	5.416
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		61.40	41.34	98.71	33.40	76.32	48.42	53.35	51.62	70.14	107.70	121.30	84.70	121.30
Runoff (mm)		202	161	170	112	92	77	90	102	132	198	231	233	1801
Rainfall (mm)		203	145	170	114	127	132	131	144	198	232	235	219	2050

Factors affecting flow regime: N  
Station type: VA1984 runoff is 84% of previous mean  
rainfall 88%

**065005 Erch at Pencaenewydd****1984**Measuring authority: WELS  
First year: 1972Grid reference: SH 400404  
Level stn (m OD) 56 13Catchment area (sq km) 18.1  
Max alt (m OD) 564**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	1 070	0 713	0 311	0 180	0 120	0 113	0 081	0 097	0 276	0 878	1 328	1 453	0 551
(m <sup>3</sup> s <sup>-1</sup> )	Peak	7 80	5 89	0 80	0 30	0 28	0 56	0 17	0 61	6 70	8 91	7 20	6 49	8 91
Runoff (mm)		158	99	46	26	18	16	12	14	40	130	190	215	963
Rainfall (mm)		207	87	52	28	39	55	37	72	162	204	218	197	1358

**Monthly and yearly statistics for previous record (Jan 1973 to Dec 1983)**

Mean	Avg	0 958	0 891	0 775	0 413	0 350	0 192	0 145	0 214	0 416	0 807	1 012	1 009	0 597
flows	Low	0 629	0 414	0 408	0 177	0 135	0 089	0 104	0 062	0 167	0 236	0 264	0 600	0 430
(m <sup>3</sup> s <sup>-1</sup> )	High	1 396	1 869	1 804	0 892	0 728	0 539	0 230	0 504	0 919	1 736	1 816	1 616	0 734
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		10 25	15 45	19 78	8 73	4 68	6 99	3 87	5 35	7 42	11 84	16 91	10 45	19 78
Runoff (mm)		147	120	115	59	52	28	21	37	60	119	145	149	1041
Rainfall (mm)		137	102	123	61	81	64	69	99	144	157	156	148	1341

Factors affecting flow regime: N  
Station type: C1984 runoff is 93% of previous mean  
rainfall 101%**066006 Elwy at Pont-y-gwyddel****1984**Measuring authority: WELS  
First year: 1972Grid reference: SH 952718  
Level stn (m OD) 87 90Catchment area (sq km) 194.0  
Max alt (m OD) 518**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	10 270	5 641	2 711	0 861	0 627	0 622	0 278	0 242	1 810	5 917	11 340	6 364	3 890
(m <sup>3</sup> s <sup>-1</sup> )	Peak	63 07	22 30	6 99	1 57	6 68	3 00	0 46	0 65	8 81	25 78	53 01	25 42	63 07
Runoff (mm)		142	73	37	17	9	8	4	3	24	82	152	88	633
Rainfall (mm)		184	68	51	15	60	43	26	76	153	141	218	96	1131

**Monthly and yearly statistics for previous record (Dec 1973 to Dec 1983)**

Mean	Avg	8 240	6 626	5 881	2 507	1 969	1 311	0 737	1 028	2 824	5 736	7 248	7 803	4 318
flows	Low	4 628	4 007	1 539	0 823	0 479	0 359	0 318	0 242	0 630	1 733	2 263	4 879	2 908
(m <sup>3</sup> s <sup>-1</sup> )	High	11 430	12 050	11 950	4 722	5 918	3 300	1 407	4 351	7 450	11 530	11 850	14 450	5 094
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		87 42	50 82	76 59	25 01	21 66	18 00	27 05	35 15	58 57	143 00	101 60	75 42	143 00
Runoff (mm)		114	83	81	33	27	18	10	14	38	79	97	108	702
Rainfall (mm)		133	94	108	56	77	75	69	84	142	130	147	141	1258

Factors affecting flow regime: SRP  
Station type: VA1984 runoff is 90% of previous mean  
rainfall 90%**067008 Alyn at Pont-y-capel****1984**Measuring authority: WELS  
First year: 1965Grid reference: SJ 336541  
Level stn (m OD) 37 29Catchment area (sq km) 227.1  
Max alt (m OD) 562**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	6 818	4 307	2 278	1 112	0 712	0 603	0 432	0 464	0 646	1 261	6 168	3 156	2 330
(m <sup>3</sup> s <sup>-1</sup> )	Peak	17 06	11 00	9 25	2 27	2 59	2 14	0 66	1 47	3 51	8 70	22 23	10 08	22 23
Runoff (mm)		80	48	27	13	8	7	5	5	7	15	70	37	323
Rainfall (mm)		118	55	58	14	52	44	20	68	131	98	179	78	915

**Monthly and yearly statistics for previous record (Jun 1965 to Dec 1983)**

Mean	Avg	4 337	4 148	3 401	2 429	1 918	1 196	0 923	0 868	1 045	2 066	3 002	4 504	2 480
flows	Low	1 753	2 088	1 465	1 023	0 741	0 438	0 331	0 287	0 474	0 452	0 614	1 246	1 266
(m <sup>3</sup> s <sup>-1</sup> )	High	7 219	9 085	8 027	5 573	5 657	2 873	2 098	2 244	3 906	6 896	5 816	9 481	3 027
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		27 53	28 52	26 11	21 09	26 86	18 34	23 23	18 07	59 11	21 90	28 21	35 92	59 11
Runoff (mm)		51	45	40	28	23	14	11	10	12	24	34	53	345
Rainfall (mm)		86	70	76	59	74	64	62	68	87	83	104	99	832

Factors affecting flow regime: EI  
Station type: CC1984 runoff is 94% of previous mean  
rainfall 98%**068003 Dane at Rudheath****1984**Measuring authority: NWWA  
First year: 1949Grid reference: SJ 668718  
Level stn (m OD) 13 19Catchment area (sq km) 407.1  
Max alt (m OD) 547**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	11 050	10 930	4 497	2 272	1 618	1 593	0 935	0 868	2 185	2 565	10 820	5 682	4 585
(m <sup>3</sup> s <sup>-1</sup> )	Peak	41 87	80 81	13 04	3 68	4 97	5 41	4 97	3 01	14 71	9 32	103 90	20 10	103 90
Runoff (mm)		73	67	30	14	11	10	6	6	14	17	69	37	354
Rainfall (mm)		112	59	47	12	42	45	28	47	112	80	137	52	773

**Monthly and yearly statistics for previous record (Oct 1949 to Dec 1983—incomplete or missing months total 5.3 years)**

Mean	Avg	7 216	5 780	4 695	3 934	3 003	2 464	2 724	3 486	3 780	4 407	6 477	7 561	4 624
flows	Low	2 183	1 545	1 277	0 988	0 720	0 746	0 734	0 654	0 633	0 877	1 396	1 803	2 333
(m <sup>3</sup> s <sup>-1</sup> )	High	15 330	12 760	17 210	9 111	7 335	6 864	8 012	14 360	11 920	14 350	16 290	22 920	8 862
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		134 50	65 24	134 00	62 81	63 60	41 96	82 83	67 96	84 20	66 25	102 90	92 78	134 50
Runoff (mm)		47	35	31	25	20	16	18	23	24	29	41	50	368
Rainfall (mm)		78	60	62	58	65	69	76	85	83	76	89	87	888

Factors affecting flow regime: S PGEI  
Station type: VA1984 runoff is 99% of previous mean  
rainfall 87%



**069002 Irwell at Adelphi Weir****1984**Measuring authority: NWWA  
First year: 1949Grid reference: SJ 824987  
Level stn. (m OD) 24.15Catchment area (sq km): 559.4  
Max alt. (m OD): 473**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	39.080	27.900	10.460	7.093	6.298	7.653	5.001	5.949	15.690	20.520	30.710	17.630	16.165
(m <sup>3</sup> s <sup>-1</sup> )	Peak	208.80	160.60	25.23	10.98	19.10	39.73	14.44	51.35	82.53	89.10	223.70	56.37	223.70
Runoff (mm)		187	125	50	33	30	35	24	28	73	98	142	84	911
Rainfall (mm)		208	85	56	14	36	79	24	70	200	149	180	79	1180

**Monthly and yearly statistics for previous record (Oct 1949 to Dec 1983—incomplete or missing months total 2.0 years)**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	24.720	22.290	17.530	14.090	12.190	10.280	11.450	16.110	16.980	20.690	25.300	29.960	18.455
flows	Low	3.705	4.787	7.803	5.408	4.348	2.750	4.031	3.676	2.991	4.990	7.534	7.469	10.469
(m <sup>3</sup> s <sup>-1</sup> )	High	40.260	67.230	48.030	27.070	21.530	18.900	26.150	56.000	43.480	52.510	51.100	84.660	30.469
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		430.40	400.30	295.60	156.20	141.60	238.00	385.60	395.70	390.80	485.10	334.90	419.50	485.10
Runoff (mm)		118	97	84	65	58	48	55	77	79	99	117	143	1041
Rainfall (mm)		118	85	90	77	82	85	101	123	122	121	133	138	1275

Factors affecting flow regime: S PGEI  
Station type: B1984 runoff is 87% of previous mean  
rainfall 93%**069006 Bollin at Dunham Massey****1984**Measuring authority: NWWA  
First year: 1955Grid reference: SJ 727875  
Level stn. (m OD) 12.80Catchment area (sq km): 256.0  
Max alt. (m OD): 483**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	10.280	7.710	3.315	1.841	1.660	1.542	1.235	1.245	2.465	3.190	9.392	4.246	4.010
(m <sup>3</sup> s <sup>-1</sup> )	Peak	34.27	29.59	10.06	2.84	6.84	4.37	5.13	5.14	21.60	11.21	43.27	11.16	43.27
Runoff (mm)		108	75	35	19	17	16	13	13	25	33	95	44	493
Rainfall (mm)		117	57	48	13	38	44	21	50	127	91	128	51	785

**Monthly and yearly statistics for previous record (Oct 1955 to Dec 1983—incomplete or missing months total 1.1 years)**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	6.182	5.458	4.377	3.478	2.917	2.287	2.266	2.857	3.189	3.982	5.208	6.277	4.035
flows	Low	1.639	1.686	1.694	1.742	1.286	0.707	0.875	0.484	0.651	1.300	1.804	2.296	2.728
(m <sup>3</sup> s <sup>-1</sup> )	High	10.240	12.880	11.470	8.732	5.781	5.953	5.626	11.410	8.963	11.340	9.425	14.510	6.307
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		43.95	39.29	36.91	60.43	63.02	34.19	41.50	41.47	35.05	41.18	44.35	46.19	63.02
Runoff (mm)		65	52	46	35	31	23	24	30	32	42	53	66	497
Rainfall (mm)		79	57	62	56	66	70	79	90	87	80	84	88	898

Factors affecting flow regime: S PGEI  
Station type: VA1984 runoff is 99% of previous mean  
rainfall 87%**069015 Etherow at Compstall****1984**Measuring authority: NWWA  
First year: 1969Grid reference: SJ 962908  
Level stn. (m OD) 73.49Catchment area (sq km): 156.0  
Max alt. (m OD): 628**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	7.770	6.999	2.279	1.411	1.079	1.086	0.718	0.692	1.573	2.104	8.208	2.767	2.890
(m <sup>3</sup> s <sup>-1</sup> )	Peak	42.12	29.99	8.82	2.08	4.61	3.94	1.45	2.41	13.37	8.96	29.14	7.80	42.12
Runoff (mm)		133	112	39	23	19	18	12	12	26	36	103	48	582
Rainfall (mm)		188	106	86	16	51	76	29	58	189	145	188	72	1204

**Monthly and yearly statistics for previous record (Jan 1977 to Dec 1983—incomplete or missing months total 0.3 years)**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	5.787	4.752	5.923	3.079	2.357	1.525	1.232	1.753	1.925	3.835	5.291	5.456	3.574
flows	Low	3.933	2.141	3.392	1.070	0.539	0.835	0.772	0.965	1.178	1.264	2.968	2.879	2.970
(m <sup>3</sup> s <sup>-1</sup> )	High	8.964	8.539	10.080	6.325	4.870	2.997	1.993	3.572	2.692	9.424	7.471	8.741	4.169
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		35.03	44.46	46.03	27.50	18.79	24.95	15.22	24.43	37.45	42.12	35.83	62.95	82.95
Runoff (mm)		99	74	102	51	40	25	21	30	32	66	88	94	723
Rainfall (mm)		151	104	162	84	80	112	69	128	129	140	157	166	1480

Factors affecting flow regime: S PGEI  
Station type: C1984 runoff is 81% of previous mean  
rainfall 81%**070004 Yarrow at Croston Mill****1984**Measuring authority: NWWA  
First year: 1973Grid reference: SD 498180  
Level stn. (m OD) 6.85Catchment area (sq km): 74.4  
Max alt. (m OD): 456**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	4.478	3.238	1.104	0.669	0.644	0.715	0.543	0.617	2.017	2.064	4.899	2.314	1.925
(m <sup>3</sup> s <sup>-1</sup> )	Peak	18.77	17.80	5.08	0.99	2.56	8.15	2.19	3.17	17.42	6.41	34.23	7.67	34.23
Runoff (mm)		161	109	40	23	23	25	20	22	70	74	164	83	815
Rainfall (mm)		156	61	45	10	29	67	29	85	204	116	174	69	1045

**Monthly and yearly statistics for previous record (Jan 1976 to Dec 1983)**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Mean	Avg	3.220	2.368	2.974	1.152	1.212	0.899	0.662	0.895	1.116	2.808	2.753	3.365	1.954
flows	Low	1.491	1.108	1.366	0.586	0.508	0.405	0.494	0.379	0.628	0.854	1.349	1.756	1.251
(m <sup>3</sup> s <sup>-1</sup> )	High	4.917	4.917	7.574	1.994	2.577	1.240	0.971	1.352	2.062	6.360	4.485	5.012	2.830
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		33.44	20.17	93.13	27.64	27.79	30.15	11.69	15.84	28.57	89.38	33.83	107.60	107.60
Runoff (mm)		116	78	107	40	44	31	24	32	39	101	96	121	829
Rainfall (mm)		104	67	107	49	75	82	48	86	102	127	108	115	1070

Factors affecting flow regime: S PGEI  
Station type: MIS1984 runoff is 98% of previous mean  
rainfall 98%

**071004 Calder at Whalley Weir****1984**Measuring authority: NWWA  
First year: 1961Grid reference: SD 729360  
Level stn. (m OD) 39.85Catchment area (sq km) 316.0  
Max alt. (m OD) 558**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	20.590	13.150	5.586	3.115	2.739	4.566	1.853	2.403	7.738	11.610	18.250	8.361	8.330
(m <sup>3</sup> s <sup>-1</sup> ):	Peak	107.30	128.60	29.91	6.76	15.26	105.60	10.82	18.08	46.07	61.80	144.60	33.90	144.60
Runoff (mm)		175	104	47	26	23	37	16	20	63	98	150	71	831
Rainfall (mm)		198	84	64	19	45	92	27	74	176	160	198	76	1213

**Monthly and yearly statistics for previous record (Oct 1963 to Dec 1983—incomplete or missing months total 2.6 years)**

Mean	Avg.	12.910	9.717	9.309	6.324	5.563	4.275	3.732	5.765	7.619	11.150	13.250	13.660	8.606
flows	Low	5.766	3.320	3.989	2.272	2.053	1.888	1.773	1.564	2.065	2.397	5.625	4.886	6.197
(m <sup>3</sup> s <sup>-1</sup> ):	High	19.020	17.170	25.320	13.010	9.916	7.372	9.059	16.280	18.620	23.910	21.990	25.610	11.485
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		183.20	146.10	344.20	108.40	91.66	135.50	230.60	141.90	206.00	229.50	615.00	194.30	615.00
Runoff (mm)		109	75	79	52	47	35	32	49	62	95	109	116	859
Rainfall (mm)		119	81	100	74	84	84	83	102	120	122	135	127	1231

Factors affecting flow regime: EI  
Station type: FV1984 runoff is 97% of previous mean  
rainfall 99%**072002 Wyre at St Michaels****1984**Measuring authority: NWWA  
First year: 1962Grid reference: SD 463411  
Level stn. (m OD) 4.36Catchment area (sq km) 275.0  
Max alt. (m OD) 560**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	17.820	9.079	3.486	1.241	0.747	2.183	0.431	1.108	7.303	10.410	18.510	8.127	8.704
(m <sup>3</sup> s <sup>-1</sup> ):	Peak	156.50	58.99	31.71	2.19	2.31	79.91	0.78	14.65	67.61	56.96	163.10	54.07	163.10
Runoff (mm)		174	83	34	12	7	21	4	11	69	101	174	79	769
Rainfall (mm)		194	69	48	13	36	101	28	95	196	166	213	95	1254

**Monthly and yearly statistics for previous record (Oct 1963 to Dec 1983—incomplete or missing months total 0.2 years)**

Mean	Avg	9.478	7.113	7.173	4.701	3.504	2.902	2.847	4.391	6.485	9.271	10.250	10.610	6.561
flows	Low	3.983	1.746	2.270	0.774	0.732	0.444	0.460	0.249	0.902	0.617	4.859	2.581	3.186
(m <sup>3</sup> s <sup>-1</sup> ):	High	15.970	16.030	25.920	12.090	10.450	7.096	5.690	18.240	13.290	25.500	15.820	19.400	10.329
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		153.70	145.60	168.90	123.00	128.20	146.60	96.89	162.10	138.60	180.40	159.00	190.50	190.50
Runoff (mm)		92	63	70	44	34	27	28	43	61	90	97	103	753
Rainfall (mm)		119	74	98	71	81	91	88	109	136	137	139	125	1268

Factors affecting flow regime: S PG  
Station type: FV1984 runoff is 102% of previous mean  
rainfall 99%**072004 Lune at Caton****1984**Measuring authority: NWWA  
First year: 1968Grid reference: SD 529653  
Level stn. (m OD) 10.66Catchment area (sq km) 983.0  
Max alt. (m OD) 736**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	77.860	48.230	15.840	7.499	3.244	10.610	1.882	3.091	39.620	67.910	77.840	47.420	33.421
(m <sup>3</sup> s <sup>-1</sup> ):	Peak	415.00	302.60	67.82	23.62	7.36	300.10	2.87	18.64	388.30	373.60	474.50	239.20	474.50
Runoff (mm)		212	123	43	20	9	28	5	8	104	185	205	129	1072
Rainfall (mm)		240	83	61	22	36	95	29	91	223	213	234	130	1457

**Monthly and yearly statistics for previous record (Jan 1959 to Dec 1983—incomplete or missing months total 4.0 years)**

Mean	Avg	52.680	36.650	35.690	29.050	19.940	15.940	18.320	24.830	33.120	43.080	51.550	53.490	34.533
flows	Low	6.621	3.840	1.1830	4.202	2.565	3.387	4.980	2.165	2.791	4.312	25.680	18.730	24.696
(m <sup>3</sup> s <sup>-1</sup> ):	High	86.420	76.630	113.800	67.970	39.670	49.180	41.480	69.640	63.650	134.400	97.220	93.770	48.501
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		854.00	674.50	650.20	97.24	228.20	217.80	281.40	382.20	395.10	536.00	541.50	517.30	854.00
Runoff (mm)		143	91	97	77	54	42	50	68	87	117	136	146	1108
Rainfall (mm)		146	91	111	97	93	93	111	124	145	142	161	158	1472

Factors affecting flow regime: SRP  
Station type: CB1984 runoff is 97% of previous mean  
rainfall 99%**073005 Kent at Sedgwick****1984**Measuring authority: NWWA  
First year: 1968Grid reference: SD 509874  
Level stn. (m OD) 18.90Catchment area (sq km) 209.0  
Max alt. (m OD) 820**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	18.180	12.210	3.349	2.590	1.382	1.583	0.658	0.740	5.757	17.260	17.830	12.550	7.841
(m <sup>3</sup> s <sup>-1</sup> ):	Peak	110.70	53.53	7.64	10.81	2.10	13.77	1.73	2.82	30.18	76.75	69.56	42.08	110.70
Runoff (mm)		233	146	43	32	18	20	8	9	71	221	221	161	1184
Rainfall (mm)		305	96	52	35	18	85	25	74	198	267	271	168	1594

**Monthly and yearly statistics for previous record (Nov 1968 to Dec 1983)**

Mean	Avg	12.680	9.709	9.648	6.293	4.219	3.885	3.298	5.039	8.013	10.060	14.040	12.510	8.274
flows	Low	7.521	4.529	3.893	2.038	1.222	0.872	1.813	0.820	1.753	1.396	5.484	5.466	5.995
(m <sup>3</sup> s <sup>-1</sup> ):	High	20.820	16.800	22.750	12.620	9.612	13.010	8.291	10.920	15.310	17.940	21.410	22.360	10.316
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		197.70	114.00	166.10	111.10	39.62	72.86	94.65	63.72	120.70	123.50	175.00	139.00	197.70
Runoff (mm)		162	113	124	78	54	48	42	65	99	129	174	160	1249
Rainfall (mm)		193	112	153	87	91	104	104	121	182	174	215	181	1717

Factors affecting flow regime: N  
Station type: CBVA1984 runoff is 95% of previous mean  
rainfall 93%

**074001 Duddon at Duddon Hall****1984**Measuring authority: NWWA  
First year: 1968Grid reference: SD 196896  
Level stn. (m OD) 14.79Catchment area (sq km): 78.2  
Max alt. (m OD): 833**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	8 471	6 271	2 151	1 260	0 379	1 904	0 446	1 094	5 687	10 180	8 434	7 827	4 509
(m <sup>3</sup> s <sup>-1</sup> )	Peak	48 35	56 22	15 61	6 33	0 64	48 63	4 21	11 89	48 44	62 21	68 73	64 31	68 73
Runoff (mm)		290	201	74	42	13	63	15	37	188	349	280	268	1820
Rainfall (mm)		295	133	83	49	26	160	65	100	290	342	306	267	2116

**Monthly and yearly statistics for previous record (Mar 1968 to Dec 1983)**

Mean	Avg	7 896	5 370	5 383	3 436	2 137	2 036	2 451	3 148	5 424	7 087	7 756	6 877	4 916
Flows	Low	3 921	2 651	1 701	0 497	0 324	0 547	0 639	0 353	0 560	1 416	3 056	2 921	3 351
(m <sup>3</sup> s <sup>-1</sup> )	High	14 210	13 390	10 480	9 096	4 492	5 817	5 034	6 847	8 521	15 160	13 160	10 740	6 627
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		150 80	97 11	140 30	43 57	43 31	37 60	47 27	96 58	123 40	165 30	129 20	134 30	165 30
Runoff (mm)		270	167	184	114	73	67	84	108	180	243	257	236	1984
Rainfall (mm)		263	144	193	111	102	118	131	154	222	244	260	229	2171

Factors affecting flow regime: P  
Station type: CB1984 runoff is 92% of previous mean  
rainfall 97%**074002 Irt at Galesyke****1984**Measuring authority: NWWA  
First year: 1967Grid reference: NY 136038  
Level stn. (m OD) 54.17Catchment area (sq km): 44.2  
Max alt. (m OD): 978**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5 114	3 323	1 680	1 369	0 383	1 490	0 467	0 698	3 711	6 382	5 330	4 746	2 891
(m <sup>3</sup> s <sup>-1</sup> )	Peak	14 26	8 39	3 43	3 65	0 86	5 75	1 14	1 45	6 02	21 18	14 84	17 20	21 18
Runoff (mm)		310	188	102	80	23	87	28	42	218	387	313	288	2066
Rainfall (mm)		423	151	132	76	30	163	84	99	313	373	355	260	2459

**Monthly and yearly statistics for previous record (Dec 1967 to Dec 1983)**

Mean	Avg	4 601	3 082	3 086	2 665	1 488	1 701	2 181	2 410	3 557	4 552	5 007	4 109	3 204
Flows	Low	1 690	0 943	0 737	0 430	0 257	0 457	0 797	0 286	0 400	0 554	1 885	1 802	2 440
(m <sup>3</sup> s <sup>-1</sup> )	High	8 242	5 117	6 575	5 947	2 572	5 216	4 141	5 144	5 582	8 174	7 094	7 645	3 950
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		31 73	18 67	16 74	34 04	6 19	10 27	27 26	18 46	17 89	27 29	21 85	20 33	34 04
Runoff (mm)		279	170	187	156	90	100	132	146	209	276	294	249	2287
Rainfall (mm)*		328	193	242	151	134	168	181	205	287	315	340	301	2845

Factors affecting flow regime: I  
Station type: VA1984 runoff is 90% of previous mean  
rainfall 86%**074005 Ehen at Braystones****1984**Measuring authority: NWWA  
First year: 1973Grid reference: NY 009061  
Level stn. (m OD) 10.11Catchment area (sq km): 125.5  
Max alt. (m OD): 899**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	10 130	5 454	2 706	1 832	0 999	0 972	0 790	0 820	2 669	10 850	10 450	9 470	4 782
(m <sup>3</sup> s <sup>-1</sup> )	Peak	53 47	25 78	25 92	7 52	1 34	4 81	3 43	3 07	15 15	55 72	58 13	46 16	58 13
Runoff (mm)		216	109	58	38	21	20	17	18	55	232	216	202	1201
Rainfall (mm)		245	108	96	52	20	111	63	80	221	300	276	212	1784

**Monthly and yearly statistics for previous record (Jan 1974 to Dec 1983)**

Mean	Avg	8 212	6 351	5 861	2 809	1 917	1 769	1 626	3 220	5 364	8 023	8 437	7 459	5 083
Flows	Low	4 881	2 011	2 225	0 993	0 771	0 779	1 074	0 661	1 694	3 640	3 121	3 136	3 963
(m <sup>3</sup> s <sup>-1</sup> )	High	16 030	15 890	10 220	5 945	4 605	4 371	2 835	7 699	8 971	14 080	12 470	13 380	6 328
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		97 85	79 36	69 47	81 07	46 97	30 96	20 89	65 62	72 82	115 90	64 49	91 47	115 90
Runoff (mm)		175	123	125	58	41	37	35	69	111	171	174	159	1278
Rainfall (mm)		220	123	179	75	85	93	114	131	210	226	211	195	1862

Factors affecting flow regime: P  
Station type: VA1984 runoff is 94% of previous mean  
rainfall 96%**075002 Derwent at Camerton****1984**Measuring authority: NWWA  
First year: 1960Grid reference: NY 038305  
Level stn. (m OD) 16.70Catchment area (sq km): 663.0  
Max alt. (m OD): 950**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	48 850	33 760	15 930	7 855	2 809	5 500	2 503	4 118	23 050	48 300	60 900	42 700	24 890
(m <sup>3</sup> s <sup>-1</sup> )	Peak	142 80	84 98	58 89	12 14	4 87	12 66	4 75	10 33	59 68	134 50	196 30	92 38	196 30
Runoff (mm)		197	128	64	31	11	22	10	17	90	195	238	172	1175
Rainfall (mm)		249	96	90	29	20	110	54	100	214	247	260	170	1639

**Monthly and yearly statistics for previous record (Sep 1960 to Dec 1983)**

Mean	Avg	37 790	28 130	24 880	19 320	14 180	10 640	10 920	17 200	24 710	35 120	40 630	39 290	25 229
Flows	Low	9 587	4 837	7 466	4 359	2 753	2 041	3 582	2 384	2 885	2 755	14 570	14 740	14 824
(m <sup>3</sup> s <sup>-1</sup> )	High	84 550	56 570	51 550	38 940	36 280	34 800	20 400	43 470	39 790	107 800	65 620	71 590	34 235
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		219 20	165 70	175 40	145 50	102 90	135 80	80 19	216 20	141 40	264 70	211 30	199 00	264 70
Runoff (mm)		153	103	101	76	57	42	44	69	97	142	159	159	1201
Rainfall (mm)*		183	105	139	96	106	110	111	140	186	197	195	177	1745

\*(1961-1983)

Factors affecting flow regime: S P  
Station type: VA1984 runoff is 98% of previous mean  
rainfall 94%

**076015 Eamont at Pooley Bridge****1984**Measuring authority: NWWA  
First year: 1970Grid reference: NY 472249  
Level stn. (m OD) 144.17Catchment area (sq km): 145.0  
Max alt. (m OD): 950**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	14 480	12 610	4 902	2 694	1 092	1 322	0 663	0 686	1 895	10 180	17 700	14 430	<b>6.888</b>
	Peak	28 89	33 14	8 26	3 65	1 93	2 00	1 08	1 38	6 01	27 51	29 02	24 11	<b>33 14</b>
Runoff (mm)		267	218	91	48	20	24	12	13	34	188	316	267	<b>1498</b>
Rainfall (mm)		335	130	80	27	78	89	43	97	234	322	382	204	<b>1971</b>

**Monthly and yearly statistics for previous record (Jul 1970 to Dec 1983)**

Mean	Avg	12 620	9 901	9 223	5 270	4 149	3 444	2 704	3 615	6 165	9 337	13 260	12 600	<b>7.682</b>
flows	Low	5 967	2 813	3 165	1 842	0 757	0 597	1 232	0 630	0 949	0 841	3 605	5 423	<b>3.959</b>
	High	24 100	21 430	17 180	10 160	10 730	11 340	5 430	6 611	12 010	19 890	21 230	23 550	<b>9.893</b>
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		63 40	50 55	42 39	20 31	25 65	19 15	11 91	17 85	40 71	60 68	62 96	69 58	<b>69.58</b>
Runoff (mm)		233	166	170	94	77	62	50	67	110	172	237	233	<b>1672</b>
Rainfall (mm)		285	160	189	101	115	110	113	143	204	225	285	258	<b>2188</b>

Factors affecting flow regime: P  
Station type: CC1984 runoff is 90% of previous mean  
rainfall: 90%**078003 Annan at Brydekirk****1984**Measuring authority: SRPB  
First year: 1967Grid reference: NY 191704  
Level stn. (m OD) 10.00Catchment area (sq km): 925.0  
Max alt. (m OD): 821**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	61 470	55 440	19 790	10 340	4 436	3 163	1 945	2 007	5 911	41 170	71 710	48 620	<b>27 167</b>
	Peak	290 10	261 00	74 57	30 29	7 66	4 63	3 80	3 10	44 66	150 10	325 00	133 10	<b>325.00</b>
Runoff (mm)		178	150	57	29	13	9	6	6	17	119	201	141	<b>925</b>
Rainfall (mm)		229	115	77	33	19	54	39	43	143	201	234	140	<b>1327</b>

**Monthly and yearly statistics for previous record (Oct 1967 to Dec 1983)**

Mean	Avg	44 770	33 940	30 960	18 670	15 120	11 530	8 775	12 190	23 750	37 130	41 710	40 550	<b>26.565</b>
flows	Low	23 490	12 930	8 402	6 124	3 519	2 937	3 253	3 784	3 362	3 592	11 490	19 530	<b>16.402</b>
	High	83 440	51 490	53 770	40 600	30 590	32 150	16 180	47 880	47 490	86 820	77 930	68 170	<b>35.427</b>
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		405 40	291 30	236 00	182 50	168 50	171 30	151 20	254 50	315 20	499 10	310 40	355 40	<b>499.10</b>
Runoff (mm)		130	90	90	52	44	32	25	35	67	108	117	117	<b>906</b>
Rainfall (mm)		140	93	115	65	89	84	87	91	136	145	135	131	<b>1311</b>

Factors affecting flow regime:  
Station type: VA1984 runoff is 102% of previous mean  
rainfall: 101%**078004 Kinnel Water at Redhall****1984**Measuring authority: SRPB  
First year: 1963Grid reference: NY 077868  
Level stn. (m OD) 53.70Catchment area (sq km): 76.1  
Max alt. (m OD): 697**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	5 411	5 363	1 490	0 826	0 191	0 123	0 048	0 049	0 751	4 943	6 743	4 329	<b>2.522</b>
	Peak	79 34	46 83	11 23	6 86	0 36	0 36	0 08	0 12	10 91	29 82	77 18	22 30	<b>79.34</b>
Runoff (mm)		190	177	57	28	7	4	2	2	26	174	230	152	<b>1043</b>
Rainfall (mm)		256	116	74	38	13	56	35	36	142	218	263	157	<b>1404</b>

**Monthly and yearly statistics for previous record (Oct 1963 to Dec 1983—incomplete or missing months total 1.0 years)**

Mean	Avg	4 090	2 920	2 697	1 546	1 577	1 143	0 847	1 220	2 707	3 552	3 938	3 817	<b>2.503</b>
flows	Low	1 610	0 590	0 552	0 251	0 122	0 111	0 128	0 098	0 099	0 207	0 740	1 081	<b>1.507</b>
	High	8 456	5 132	5 124	4 161	3 715	3 282	1 763	4 363	4 985	7 288	7 535	7 009	<b>3.482</b>
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		78 68	77 68	59 19	42 46	51 79	36 09	57 71	52 36	67 21	110 90	86 69	103 60	<b>110.90</b>
Runoff (mm)		144	94	95	53	56	39	30	43	92	125	134	134	<b>1038</b>
Rainfall (mm)		145	98	121	75	103	92	88	102	153	154	148	147	<b>1426</b>

Factors affecting flow regime:  
Station type: VA1984 runoff is 101% of previous mean  
rainfall: 98%**080001 Urr at Dalbeattie****1984**Measuring authority: SRPB  
First year: 1963Grid reference: NX 822610  
Level stn. (m OD) 4.01Catchment area (sq km): 199.0  
Max alt. (m OD): 432**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	13 960	12 020	3 357	1 515	0 382	0 355	0 140	0 149	1 092	12 120	15 590	12 560	<b>6.103</b>
	Peak	74 89	60 31	22 80	8 00	0 68	1 95	0 18	0 38	11 71	59 61	129 70	33 02	<b>129.70</b>
Runoff (mm)		188	151	45	20	5	5	2	2	14	163	203	169	<b>967</b>
Rainfall (mm)		231	111	67	34	18	57	31	57	135	223	220	157	<b>1341</b>

**Monthly and yearly statistics for previous record (Nov 1963 to Dec 1983)**

Mean	Avg	9 480	7 695	6 265	3 393	3 099	2 181	1 207	2 033	5 010	8 096	9 418	9 413	<b>5.598</b>
flows	Low	3 534	1 419	2 094	0 753	0 308	0 246	0 164	0 319	0 522	1 711	3 369	3 369	<b>3.109</b>
	High	19 080	13 750	11 780	7 485	8 229	6 833	2 973	10 080	11 540	19 400	19 420	15 720	<b>8.358</b>
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		133 70	91 45	95 03	61 69	65 95	59 18	66 15	61 69	84 28	162 20	95 58	164 30	<b>164.30</b>
Runoff (mm)		128	94	84	44	42	28	16	27	65	109	123	127	<b>888</b>
Rainfall (mm)		130	92	109	65	84	81	74	89	136	142	142	133	<b>1277</b>

Factors affecting flow regime:  
Station type: VA1984 runoff is 109% of previous mean  
rainfall: 105%

**081003 Luce at Airyhemming****1984**Measuring authority: SRPB  
First year: 1966Grid reference: NX 180599  
Level stn (m OD): 19.00Catchment area (sq km): 171.0  
Max alt. (m OD): 438**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	13.850	10.400	4.401	2.346	0.341	0.422	0.191	0.278	4.576	12.460	12.670	10.010	5.995
(m <sup>3</sup> s <sup>-1</sup> )	Peak	81.55	100.30	61.34	37.36	0.54	1.45	0.44	2.20	50.06	76.26	116.00	54.39	118.00
Runoff (mm)		217	152	69	36	5	6	3	4	69	195	192	157	1108
Rainfall (mm)		239	123	76	49	14	75	43	78	178	218	200	161	1454

**Monthly and yearly statistics for previous record (Jan 1967 to Dec 1983)**

Mean	Avg	10.540	7.020	5.969	3.225	2.574	1.888	1.844	2.344	6.001	8.993	9.935	8.622	5.742
flows	Low	5.438	3.943	1.359	0.454	0.260	0.225	0.333	0.277	0.365	1.689	3.857	2.445	3.691
(m <sup>3</sup> s <sup>-1</sup> )	High	15.600	12.110	11.300	8.289	7.232	4.587	5.399	6.806	12.820	16.750	15.940	13.440	7.625
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		177.10	146.10	197.30	197.60	63.64	64.10	131.50	171.80	192.40	231.80	168.40	204.00	231.80
Runoff (mm)		165	100	93	49	40	29	29	37	91	141	151	135	1060
Rainfall (mm)		171	99	113	70	80	82	87	94	150	163	163	139	1411

Factors affecting flow regime: S P  
Station type: VA1984 runoff is 104% of previous mean  
rainfall 103%**082001 Girvan at Robstone****1984**Measuring authority: CRPB  
First year: 1963Grid reference: NX 217997  
Level stn (m OD): 9.13Catchment area (sq km): 245.5  
Max alt. (m OD): 659**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	16.210	13.240	4.160	2.151	0.521	0.371	0.487	0.301	5.772	15.060	13.040	10.970	6.857
(m <sup>3</sup> s <sup>-1</sup> )	Peak	101.00	79.94	49.11	13.30	0.90	1.02	4.43	1.35	64.42	66.83	81.29	73.82	101.00
Runoff (mm)		177	135	45	23	6	4	5	3	61	164	138	120	881
Rainfall (mm)		209	105	66	38	17	57	74	51	190	232	172	135	1346

**Monthly and yearly statistics for previous record (Oct 1963 to Dec 1983)**

Mean	Avg	10.370	7.261	6.357	3.749	2.944	2.022	1.978	2.891	5.805	9.423	11.400	10.100	6.189
flows	Low	4.789	2.805	1.595	0.924	0.786	0.482	0.521	0.554	0.546	1.191	2.755	2.894	4.222
(m <sup>3</sup> s <sup>-1</sup> )	High	19.370	12.990	11.520	11.330	8.256	5.682	6.317	7.487	11.880	17.380	20.230	19.450	7.859
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		95.68	84.94	63.02	65.23	55.75	52.91	97.92	92.54	82.62	147.20	88.07	183.00	183.00
Runoff (mm)		113	72	69	40	32	21	22	32	61	103	120	110	795
Rainfall (mm)		138	82	109	66	82	81	90	95	143	160	168	137	1351

Factors affecting flow regime: S  
Station type: VA1984 runoff is 111% of previous mean  
rainfall 100%**083003 Ayr at Catrine****1984**Measuring authority: CRPB  
First year: 1970Grid reference: NS 525259  
Level stn (m OD): 89.94Catchment area (sq km): 166.3  
Max alt. (m OD): 548**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	9.213	11.280	3.879	1.626	0.639	0.689	0.416	0.410	2.179	9.042	8.186	7.173	4.561
(m <sup>3</sup> s <sup>-1</sup> )	Peak	117.90	96.54	35.02	14.61	0.73	1.57	0.58	0.98	25.90	67.09	62.49	39.36	117.90
Runoff (mm)		148	170	62	25	10	11	7	7	34	146	128	116	863
Rainfall (mm)		236	119	74	40	13	68	30	50	131	199	163	143	1266

**Monthly and yearly statistics for previous record (Sep 1970 to Dec 1983)**

Mean	Avg	9.146	5.165	5.537	2.748	2.040	1.946	1.681	2.356	5.091	6.637	8.821	7.105	4.856
flows	Low	3.977	2.986	1.480	0.733	0.593	0.658	0.528	0.488	0.597	0.631	2.147	3.312	3.613
(m <sup>3</sup> s <sup>-1</sup> )	High	14.120	6.927	10.780	7.056	4.703	4.179	3.402	6.676	11.800	10.900	13.630	13.230	5.926
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		178.50	93.52	92.30	67.02	75.55	60.69	41.28	72.00	143.40	162.60	105.60	119.20	178.50
Runoff (mm)		147	76	89	43	33	30	27	38	79	107	137	114	921
Rainfall (mm)		143	80	106	63	72	84	83	81	129	146	162	126	1275

Factors affecting flow regime: H  
Station type: VA1984 runoff is 94% of previous mean  
rainfall 99%**084012 White Cart Water at Hawkhead****1984**Measuring authority: CRPB  
First year: 1963Grid reference: NS 499629  
Level stn (m OD): 4.06Catchment area (sq km): 234.9  
Max alt. (m OD): 375**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	17.980	14.260	4.304	2.143	0.973	0.998	0.824	0.885	2.919	14.810	17.590	13.600	7.607
(m <sup>3</sup> s <sup>-1</sup> )	Peak	161.10	99.14	14.71	10.63	1.47	2.78	1.25	4.13	24.97	83.12	123.00	54.97	161.10
Runoff (mm)		205	152	49	24	11	11	9	10	32	169	194	155	1022
Rainfall (mm)		213	112	67	30	16	48	18	47	140	230	207	152	1280

**Monthly and yearly statistics for previous record (Oct 1963 to Dec 1983)**

Mean	Avg	10.580	7.370	7.006	3.934	3.501	2.637	2.159	3.415	6.944	10.950	11.620	10.040	6.679
flows	Low	5.368	2.646	1.676	1.113	0.995	1.234	1.084	1.036	1.141	1.212	3.259	3.211	4.419
(m <sup>3</sup> s <sup>-1</sup> )	High	21.190	12.780	15.630	8.522	7.652	6.542	4.256	7.270	14.610	46.570	20.730	19.610	10.946
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		187.40	139.20	117.00	82.46	115.10	65.13	69.33	111.30	132.90	134.40	134.00	187.10	187.40
Runoff (mm)		121	76	80	43	40	29	25	39	77	125	128	114	897
Rainfall (mm)		120	76	101	62	82	75	74	91	134	138	147	122	1222

Factors affecting flow regime: S  
Station type: VA1984 runoff is 114% of previous mean  
rainfall 105%



**084016 Luggie Water at Condorrat****1984**Measuring authority CRPB  
First year 1968Grid reference: NS 739725  
Level stn. (m OD) 67.98Catchment area (sq km) 33.9  
Max alt. (m OD) 107**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	3 312	1 712	0 678	0 297	0 176	0 203	0 155	0 145	0 317	1 864	2 255	1 235	1 029
(m <sup>3</sup> s <sup>-1</sup> )	Peak	38 90	14 76	4 42	0 52	0 43	0 89	0 72	0 68	2 41	25 94	25 58	11 23	38 90
Runoff (mm)		262	127	54	23	14	16	12	11	24	147	172	98	959
Rainfall (mm)		163	104	72	21	24	53	23	54	126	185	187	107	1119

**Monthly and yearly statistics for previous record (Oct 1968 to Dec 1983—incomplete or missing months total 0.4 years)**

Mean	Avg	1 364	0 984	0 940	0 533	0 489	0 293	0 227	0 374	0 714	1 047	1 338	1 279	0 798
flows	Low	0 758	0 395	0 370	0 274	0 166	0 137	0 146	0 123	0 125	0 129	0 356	0 592	0 539
(m <sup>3</sup> s <sup>-1</sup> )	High	2 151	1 944	1 591	1 030	1 199	0 673	0 364	0 981	1 956	2 148	2 163	2 230	1 024
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		27 35	22 89	35 65	8 86	14 54	5 55	5 00	20 88	41 98	42 44	30 68	37 41	42 44
Runoff (mm)		108	71	74	41	39	22	18	30	55	83	102	101	743
Rainfall (mm)		104	70	87	49	73	68	68	79	111	117	120	101	1047

Factors affecting flow regime: N  
Station type VA1984 runoff is 129% of previous mean  
rainfall 107%**085001 Leven at Linnbrane****1984**Measuring authority CRPB  
First year 1963Grid reference: NS 394803  
Level stn. (m OD) 4.30Catchment area (sq km) 784.3  
Max alt. (m OD) 1130**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	87 780	73 500	36 820	18 190	10 780	11 210	6 706	3 974	8 195	42 540	90 910	94 750	40 446
(m <sup>3</sup> s <sup>-1</sup> )	Peak	113 90	93 60	54 84	45 85	19 57	18 67	13 51	5 69	20 97	102 10	117 10	125 00	126 00
Runoff (mm)		300	235	126	60	37	37	23	14	27	145	300	324	1627
Rainfall (mm)		341	171	96	73	22	93	41	74	194	331	336	237	2009

**Monthly and yearly statistics for previous record (Jul 1963 to Dec 1983)**

Mean	Avg	60 900	53 350	45 250	31 820	25 800	21 550	18 590	20 300	34 310	54 570	59 660	59 750	40 431
flows	Low	29 410	18 610	16 630	10 540	10 620	9 716	10 320	7 104	9 429	10 830	24 540	36 270	30 712
(m <sup>3</sup> s <sup>-1</sup> )	High	119 100	102 100	98 420	51 390	51 100	51 860	30 690	40 070	64 980	90 150	96 320	91 240	49 875
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		150 50	140 80	122 20	83 14	71 90	66 58	57 64	56 96	100 80	138 50	130 00	131 00	150 50
Runoff (mm)		208	166	155	105	88	71	63	69	113	186	197	204	1627
Rainfall (mm)		232	142	173	100	125	121	118	132	217	227	232	212	2031

Factors affecting flow regime:  
Station type VA1984 runoff is 100% of previous mean  
rainfall 99%**094001 Ewe at Poolewe****1984**Measuring authority HRPB  
First year 1970Grid reference: NG 859803  
Level stn. (m OD) 4.61Catchment area (sq km) 441.1  
Max alt. (m OD) 1014**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	60 540	34 190	26 480	32 340	6 702	5 787	8 120	6 239	31 570	45 560	30 040	62 050	29 135
(m <sup>3</sup> s <sup>-1</sup> )	Peak	177 10	52 70	54 71	73 59	19 93	17 23	12 20	12 06	57 75	63 56	71 38	134 00	177 10
Runoff (mm)		368	194	161	190	41	34	49	38	185	277	177	377	2090
Rainfall (mm)		296	179	136	200	35	106	100	84	274	341	219	346	2316

**Monthly and yearly statistics for previous record (Oct 1970 to Dec 1983)**

Mean	Avg	40 970	28 880	26 940	22 060	15 430	14 330	14 000	15 180	31 650	36 090	49 480	45 680	28 375
flows	Low	18 550	12 980	8 842	4 537	3 862	4 675	7 884	7 437	8 046	13 160	22 680	16 500	19 389
(m <sup>3</sup> s <sup>-1</sup> )	High	81 130	46 880	54 440	38 270	27 730	27 180	26 180	25 920	57 270	66 220	77 600	81 840	35 549
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		147 60	105 00	117 00	68 43	65 63	64 43	43 41	82 23	109 20	119 00	136 10	179 80	179 80
Runoff (mm)		249	159	164	130	94	84	85	92	186	219	291	277	2030
Rainfall (mm)		268	164	201	125	114	133	136	144	252	299	353	296	2485

Factors affecting flow regime: N  
Station type VA1984 runoff is 103% of previous mean  
rainfall 93%**095001 Inver at Little Assynt****1984**Measuring authority HRPB  
First year 1977Grid reference: NC 147250  
Level stn. (m OD) 60.30Catchment area (sq km) 137.5  
Max alt. (m OD) 988**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg	12 970	9 235	7 521	7 025	3 076	2 330	3 272	3 680	9 145	15 690	8 988	13 950	8 073
(m <sup>3</sup> s <sup>-1</sup> )	Peak	34 29	16 81	20 06	14 93	5 30	4 80	10 47	9 79	19 80	23 88	18 82	39 47	39 47
Runoff (mm)		253	168	147	137	60	44	64	72	172	306	169	272	1858
Rainfall (mm)		282	135	140	158	26	98	109	85	265	306	198	278	2080

**Monthly and yearly statistics for previous record (Aug 1977 to Dec 1983)**

Mean	Avg	11 670	7 395	10 070	5 096	3 899	3 429	5 199	5 221	11 410	14 370	15 520	11 000	8 698
flows	Low	6 949	5 045	4 402	3 453	1 660	1 915	2 432	3 394	5 263	6 227	8 605	4 631	7 961
(m <sup>3</sup> s <sup>-1</sup> )	High	19 950	11 330	19 400	7 552	7 131	4 805	10 340	8 002	16 390	21 180	23 960	17 580	10 784
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		55 24	31 02	62 82	13 15	20 24	19 72	14 90	16 81	56 50	57 51	50 06	46 65	62 82
Runoff (mm)		227	131	196	96	76	65	101	102	215	280	293	214	1996
Rainfall (mm)*		257	114	227	80	77	126	132	156	279	299	349	249	2340

Factors affecting flow regime: N  
Station type VA1984 runoff is 93% of previous mean  
rainfall 89%

**096001 Halladale at Halladale****1984**Measuring authority: HRPB  
First year: 1975Grid reference: NC 891561  
Level stn. (m OD): 23.17Catchment area (sq km): 204.6  
Max alt. (m OD): 580**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	10.900	10.570	5.337	3.242	0.348	0.631	0.230	0.227	5.543	12.640	11.100	6.531	5.608
(m <sup>3</sup> s <sup>-1</sup> )	Peak	52.17	51.14	33.63	44.02	0.93	20.83	0.52	0.44	127.60	123.90	68.38	97.01	127.60
Runoff (mm)		143	129	70	41	5	8	3	3	70	166	141	85	863
Rainfall (mm)		173	88	94	54	26	58	35	27	162	224	192	102	1235

**Monthly and yearly statistics for previous record (Jan 1976 to Dec 1983)**

Mean	Avg.	9.048	5.943	5.635	2.740	2.541	1.562	1.572	1.547	4.777	7.471	9.096	8.466	5.032
Flows	Low	5.333	1.624	2.907	0.624	0.279	0.271	0.215	0.186	2.181	2.295	2.510	3.004	3.420
(m <sup>3</sup> s <sup>-1</sup> )	High	11.900	10.940	9.753	6.442	5.434	3.528	4.943	3.386	7.886	16.560	14.730	12.390	6.418
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		83.60	68.52	107.00	53.18	108.00	46.89	129.10	76.31	189.10	126.00	163.20	115.40	189.10
Runoff (mm)		118	71	74	35	33	20	21	20	61	98	115	111	776
Rainfall (mm)		148	67	112	63	65	62	61	68	125	138	149	138	1196

Factors affecting flow regime: N  
Station type: VA1984 runoff is 111% of previous mean  
rainfall 103%**101002 Medina at Upper Shide****1984**Measuring authority: SWA  
First year: 1960Grid reference: SZ 503874  
Level stn. (m OD): 10.40Catchment area (sq km): 29.8  
Max alt. (m OD): 167**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	0.587	0.318	0.330	0.231	0.210	0.116	0.086	0.092	0.106	0.196	0.379	0.385	0.253
(m <sup>3</sup> s <sup>-1</sup> )	Peak	5.38	0.95	3.32		7.00	0.19	0.13	0.15	0.28	4.73	2.83	1.01	
Runoff (mm)		53	27	30	20	19	10	8	8	9	18	33	35	289
Rainfall (mm)		150	47	96	1	106	13	27	28	70	112	129	117	896

**Monthly and yearly statistics for previous record (Oct 1965 to Dec 1983—incomplete or missing months total 7.3 years)**

Mean	Avg.	0.430	0.449	0.368	0.258	0.214	0.149	0.143	0.120	0.176	0.231	0.355	0.400	0.274
Flows	Low	0.150	0.160	0.133	0.104	0.094	0.069	0.083	0.044	0.080	0.110	0.120	0.116	0.211
(m <sup>3</sup> s <sup>-1</sup> )	High	0.623	0.760	0.903	0.522	0.356	0.213	0.199	0.180	0.365	0.413	0.769	0.663	0.335
Peak flow (m <sup>3</sup> s <sup>-1</sup> )		5.86	6.00	7.28	5.44	4.90	1.79	3.72	1.74	3.74	4.15	8.64	5.52	8.64
Runoff (mm)		39	37	33	22	19	13	13	11	15	21	31	36	290
Rainfall (mm)		128	86	84	59	78	70	67	70	88	92	125	117	1064

Factors affecting flow regime:  
Station type: FL1984 runoff is 93% of previous mean  
rainfall 84%**201007 Burn Dennet at Burdennet Bridge****1984**Measuring authority: DOEN  
First year: 1975Grid reference: IC 372047  
Level stn. (m OD): 2.00Catchment area (sq km): 145.3  
Max alt. (m OD): 539**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	8.198	7.480	3.113	1.708	0.927	0.843	0.832	0.794	1.854	3.679	4.101	5.798	3.277
(m <sup>3</sup> s <sup>-1</sup> )	Peak	30.45	30.24	20.96	3.55	1.11	1.77	5.43	2.23	11.03	27.49	21.35	23.67	30.45
Runoff (mm)		151	129	57	30	17	15	15	15	33	68	73	107	711
Rainfall (mm)		219	115	95	32	27	61	71	66	112	128	124	114	1164

Factors affecting flow regime: E  
Station type: VA**205005 Ravernet at Ravernet****1984**Measuring authority: DOEN  
First year: 1972Grid reference: LJ 267613  
Level stn. (m OD): 31.00Catchment area (sq km): 69.5  
Max alt. (m OD): 163**Hydrometric statistics for 1984**

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Year
Flows	Avg.	3.742	5.566	1.652	0.356	0.055	0.072	0.006	0.021	0.156	0.597	2.378	3.205	1.484
(m <sup>3</sup> s <sup>-1</sup> )	Peak	24.35	40.11	29.09	1.24	0.09	0.78	0.03	0.11	0.48	2.15	9.99	8.95	40.11
Runoff (mm)		144	201	64	13	2	3	0	1	6	23	89	124	669
Rainfall (mm)		152	104	80	17	18	60	26	86	106	74	109	109	941

Factors affecting flow regime: I  
Station type: FV



# THE SURFACE WATER DATA RETRIEVAL SERVICE

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The surface water archive comprises some 22000 station-years of daily river flows and incorporates data from over 1000 gauging stations throughout the United Kingdom. In addition to gauged flow data, naturalised data have been derived from the records of a small number of gauging stations. Catchment areal rainfall and the highest instantaneous flow, when available, are also archived on a monthly basis.

In order that the contents of the archive may be readily accessible, a suite of programs has been developed to provide a selection of retrieval options. Descriptions of these options are listed below, and examples of the computer output are given on pages 139 to 146. The data retrieval programs have been designed to allow flexibility in the presentation of the options, particularly those producing graphical output. Before finalising a data request it is recommended that the concise register of gauging stations on pages 147 to 152, and the summary of archived data given on pages 153 to 161, be consulted to check the availability of suitable data sets.

In response to user requirements the data retrieval facilities are being continually extended. A wide range of specialist analyses and presentations is now available. Individuals having data requirements not catered for in the standard retrieval suite are invited to discuss their particular needs – address below.

Retrievals are normally available on line printer listings or magnetic tape, or as hydrograph plots.

## *Cost of Service*

To cover the computing and handling costs, a moderate charge will be made depending on the output options selected. Estimates of these charges

may be obtained on request; the right to amend or waive charges is reserved.

## *Requests for retrieval options*

Requests for retrieval options should include: the name and address to which output should be directed, the gauging stations for which data are required together with the period of record of interest and the title of the required options. Where possible, a daytime telephone number should be given.

## *Requests should be addressed to:*

Surface Water Archive  
Institute of Hydrology  
Maclean Building  
Crowmarsh Gifford  
WALLINGFORD  
OXFORDSHIRE OX10 8BB

Telephone: Wallingford (0491) 38800

## *Hydrological Data at the Institute of Hydrology*

The surface water archive is one of several major sources of hydrological data held at Wallingford. Others include an archive of flood peaks from over 600 catchments and a flood event archive comprising rainfall and river flows at short time intervals for over 3000 individual events. Data may be retrieved from these sources in a variety of formats. Enquiries concerning the availability and use of such data should be directed to the above address.

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## LIST OF SURFACE WATER RETRIEVAL OPTIONS

OPTION NUMBER	TITLE	NOTES
1	Table of daily mean gauged discharges	Includes monthly and annual summary statistics. Flows in cubic metres per second.
	Table of daily mean naturalised discharges	Includes monthly and annual summary statistics. Flows in cubic metres per second.
	Yearbook data tabulation (daily)	River flow and catchment rainfall data for a specified year with basic gauging station details and flow statistics derived from the historical record. Naturalised flows (where available) – and the corresponding runoff – may also be tabulated.
	Table of monthly mean gauged discharges	Includes monthly and annual summary statistics. Flows in cubic metres per second.

	Table of monthly mean naturalised discharges	Includes summary statistics. Flows in cubic metres per second.
	Yearbook data tabulation (monthly)	Monthly river flow and catchment rainfall data for a specified year together with comparative statistics derived from the historical record. Naturalised flows (when available) – and the corresponding runoff – may also be tabulated.
	Table of monthly extreme flows	The lowest and highest daily mean flows, together with the highest instantaneous flow (when available). Flows in cubic metres per second. Includes summary statistics.
	Table of catchment monthly rainfall	Rainfall totals in millimetres and as a percentage of the 1941–70 catchment average. Includes summary statistics.
	Table of catchment monthly areal rainfall and runoff	Runoff is normally derived from the monthly mean gauged flow. An additional listing is provided for catchments with naturalised flow records. A monthly summary is provided and all rainfall and runoff totals are in millimetres.
10	Hydrographs of daily mean flows	Choices of scale, units, truncation level and overlay grid pattern are available. The period of record maximum and minimum flows, or the mean flow, may be included. The plots may be based on single or n-day means, or on n-day running mean flows.
	Hydrographs of monthly mean flows	Choices of scale, unit and overlay grid pattern are available. The period of record maximum, minimum and mean flows may be included.
	Flow duration statistics	Tabulation of the 1–99 percentile flows with optional plot of the flow duration curve. The percentiles may be derived from daily flows or n-day averages and the analysis may be restricted to nominated periods within the year eg April–September only. Choices of scales, grid marking and units are available and the percentiles may be expressed as a percentage of the average flow or of a nominated flow.
	Table of gauging station reference information	Tabulation of selected gauging station details and catchment characteristics for nominated gauging stations.
	Table of hydrometric statistics	Provides a comparison between summary statistics for a selected year, or a group of years, and the corresponding statistics for a nominated period of record.
	Gauging station description	A brief summary of the gauging station, its history and major influences on the flow regime.
16	River flow pattern plots	Three plots on one sheet: a) daily mean flow hydrograph for a selected year. b) maximum and minimum monthly flows, together with the 30-day running mean, for the preceding period of record. c) flow duration curves for the specified year and for the period of record.

Examples of these sixteen options follow.



**OPTION 1 TABLE OF DAILY MEAN GAUGED DISCHARGES**

000001	TAM AT UMBRELLICH					DAILY MEAN GAUGED DISCHARGES IN CUBIC METRES PER SECOND						
1981												
DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	19.190	10.920	37.280	13.900	8.922	16.710	3.008	3.249	1.272	39.130	44.220	33.430
2	19.140	11.980	40.710	17.070	13.730	29.010	3.125	2.242	1.305	63.770	35.000	27.270
3	23.430	43.450	78.700	10.850	18.080	16.470	3.740	1.919	1.235	105.700	29.010	23.180
4	17.380	28.340	23.790	9.623	18.300	15.690	3.109	1.837	1.137	78.200	24.630	20.440
5	15.590	22.470	21.020	6.913	17.550	13.840	3.043	2.091	1.109	58.640	20.230	17.690
6	15.520	19.190	21.440	6.200	19.040	12.160	3.231	6.581	1.078	44.100	17.230	18.660
7	13.830	17.750	33.840	7.679	17.730	11.190	2.682	4.332	1.079	33.600	15.170	31.070
8	12.670	16.930	37.810	7.318	15.710	10.670	2.441	3.192	1.106	30.330	13.280	69.840
9	16.190	20.630	223.400	7.043	13.770	9.451	2.283	2.787	1.096	33.360	11.630	41.100
10	14.420	16.420	173.500	6.694	29.340	10.960	2.174	2.405	1.228	31.090	10.580	40.460
11	11.690	15.390	138.900	7.144	17.620	17.580	2.037	2.200	1.830	30.730	10.380	89.490
12	14.730	15.010	107.300	5.967	14.770	10.940	2.084	7.037	2.238	29.440	9.877	41.830
13	15.630	13.250	93.670	5.422	12.940	9.768	2.115	1.920	2.268	23.180	8.384	104.300
14	80.700	11.940	64.940	5.045	12.020	9.056	2.013	1.866	2.418	21.270	7.645	136.100
15	59.900	11.250	47.040	4.826	18.840	8.388	1.993	1.810	4.032	34.210	7.735	74.980
16	59.230	10.400	36.300	4.563	18.690	7.874	1.997	1.866	2.511	23.080	7.325	48.700
17	59.010	9.654	28.140	4.267	33.340	7.013	1.939	1.584	4.231	28.543	6.770	35.880
18	61.550	8.956	23.000	4.017	28.920	6.398	1.614	1.518	2.100	25.050	31.920	26.643
19	51.280	6.265	19.490	3.848	21.590	5.996	1.918	1.597	42.080	32.680	45.490	22.280
20	51.260	7.799	16.960	3.671	24.980	5.551	1.882	2.931	34.500	76.020	55.820	83.240
21	57.170	13.540	54.195	3.520	18.270	4.922	2.531	2.170	23.510	57.400	41.800	40.630
22	44.360	14.310	57.060	3.434	16.680	4.532	6.875	1.867	17.760	42.940	32.140	29.310
23	36.600	31.930	44.340	3.320	18.670	4.320	5.231	1.737	14.530	32.740	27.840	23.180
24	32.140	16.980	39.990	3.716	23.600	4.180	3.528	1.605	25.270	79.240	22.910	18.860
25	25.910	14.590	38.443	4.100	31.200	3.912	2.786	1.512	16.820	100.000	19.190	16.110
26	21.520	13.620	49.640	0.110	25.570	3.759	2.807	1.422	15.610	67.880	19.650	18.300
27	16.294	24.220	32.860	24.990	24.870	3.541	2.319	1.355	15.740	49.610	35.860	42.330
28	16.460	22.710	26.900	3.750	20.850	3.366	2.151	1.310	12.460	40.030	38.720	65.270
29	14.910	22.310	14.700	18.340	3.165	2.000	1.279	2.950	58.140	30.400	74.180	
30	13.190	18.380	10.390	16.400	3.035	1.892	1.266	16.350	60.990	44.110	68.900	
31	11.850	15.890		15.370		2.710	1.224		52.880		53.640	
MISSING DATA 0 0 0 0 0 0 0 0 0 0 0 0												
MEAN	29.627	16.857	52.144	7.776	19.552	9.114	2.749	2.208	9.896	47.732	24.213	46.346
MCN	11.690	7.799	15.890	3.320	8.922	3.035	1.874	1.224	1.078	21.270	7.235	16.110
MAX	90.700	43.450	223.400	24.990	33.340	29.010	6.875	8.581	42.080	105.700	55.820	136.100
MONTHLY TOTALS (CUMED.DAYS)												
	924.64	473.99	1616.45	233.29	606.10	273.42	85.23	66.44	196.87	1479.64	726.39	1436.79
SUMMARY: MAX 223.400 ON 9 MAR												
MCN 1.078 ON 6 SEP												
MEAN 22.519												

## OPTION 2 TABLE OF DAILY MEAN NATURALISED DISCHARGES

039002:	THAMES AT KINGSTON												DAILY MEAN NATURALISED DISCHARGES IN CUBIC METRES PER SECOND											
													1981											
DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC												
1	73.500	67.000	63.100	228.300	104.500	59.200	52.600	72.250	31.700	113.000	83.400	82.000												
2	71.700	66.200	159.600	227.500	66.200	192.000	50.700	50.850	31.000	101.000	64.000	72.400												
3	67.600	66.300	232.000	192.000	87.300	229.000	50.700	52.250	31.750	80.300	78.600	66.600												
4	65.700	79.100	196.300	135.000	96.700	142.500	46.700	42.500	32.950	77.600	63.600	69.100												
5	65.200	81.100	139.000	132.000	93.400	106.000	46.900	42.600	29.900	72.100	68.100	66.800												
6	66.500	57.000	127.000	117.000	84.000	102.000	45.600	125.000	29.200	93.300	61.100	69.400												
7	69.300	50.200	128.000	115.000	81.800	91.100	45.500	125.000	29.600	111.000	61.800	72.400												
8	74.300	62.700	189.000	109.000	78.200	93.400	46.600	79.100	30.300	75.400	61.000	116.000												
9	74.500	63.200	216.000	96.100	77.600	89.100	45.100	67.600	29.700	79.100	60.600	127.000												
10	75.700	65.700	242.000	105.000	97.800	82.000	43.500	64.400	26.100	79.100	57.100	104.000												
11	82.300	67.800	267.000	101.000	97.100	90.300	39.800	60.600	31.300	78.600	57.600	98.900												
12	80.300	67.300	271.000	97.900	89.900	84.600	36.300	36.300	39.100	76.800	57.300	87.600												
13	76.700	63.500	271.000	96.000	74.200	78.300	42.400	45.100	37.700	63.800	57.200	90.100												
14	76.800	61.000	269.000	120.200	71.400	73.600	41.200	41.500	38.560	67.200	55.400	230.000												
15	99.400	56.700	274.000	114.000	77.700	70.300	43.200	40.900	44.600	67.800	53.100	314.000												
16	107.000	59.900	253.000	84.500	92.300	69.300	40.800	36.600	41.300	66.700	56.600	279.000												
17	111.000	55.500	218.000	65.100	91.200	67.600	41.600	37.000	36.300	59.600	73.700	228.000												
18	121.000	55.300	166.000	80.900	93.100	65.400	42.000	37.700	39.900	55.700	66.600	145.000												
19	112.000	54.500	139.000	74.200	92.200	66.300	41.600	37.600	49.600	61.300	97.600	116.000												
20	109.000	56.300	127.000	76.300	100.600	64.400	41.600	37.400	104.000	136.000	121.000	110.000												
21	109.000	55.100	117.000	75.100	122.000	54.200	40.300	35.200	67.300	179.000	146.000	156.000												
22	113.000	51.800	173.000	75.300	102.000	59.800	35.700	36.400	61.600	147.000	131.000	164.000												
23	111.000	58.100	208.000	73.100	50.400	61.000	55.400	36.100	40.100	102.000	97.900	132.000												
24	95.600	60.100	204.500	72.400	111.500	61.700	35.300	35.100	42.700	92.600	90.400	121.600												
25	86.100	59.200	204.000	79.500	177.300	61.000	46.000	34.900	51.900	94.100	72.000	102.000												
26	78.800	61.000	203.000	128.000	266.300	57.100	47.400	32.800	131.000	107.000	75.600	99.300												
27	77.500	61.000	161.000	183.000	267.000	57.700	39.300	34.300	162.000	90.900	74.800	94.800												
28	72.500	64.800	131.000	194.000	212.000	57.400	32.600	32.700	98.300	65.500	100.000	111.000												
29	71.800	135.000	174.000	171.000	54.200	39.400	32.400	73.600	62.300	89.500	216.000													
30	71.700	145.000	140.000	122.000	50.700	37.500	32.000	101.000	61.400	67.700	295.000													
31	67.500	204.000		126.000		44.500	30.300		62.100		264.000													

## OPTION 3 YEARBOOK DATA TABULATION (DAILY)

T a w a t U n b e r l e i g h

Measuring authority: SWA

Grid reference: S5608237

Catchment area (sq km): 826.2

First year: 1958

Level stn. (m OD): 14.14

Max alt. (m OD): 804

## DAILY MEAN GAUGED DISCHARGES (cubic metres per second)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	55.540	16.580	32.590	6.793	2.961	1.481	3.458	2.565	2.481	11.570	12.900	18.040
2	44.330	14.980	47.170	8.223	2.900	1.404	3.217	2.355	2.499	16.530	12.920	15.680
3	39.760	13.270	71.030	7.983	3.454	1.824	2.920	2.179	2.266	17.900	11.100	13.500
4	43.330	12.030	45.610	7.400	3.646	1.883	2.644	2.037	2.252	24.500	13.800	14.580
5	61.630	29.340	34.130	7.012	3.957	1.468	2.492	2.248	2.242	28.310	35.990	132.900
6	47.220	20.720	66.100	8.518	4.265	1.327	2.325	2.978	2.354	24.750	36.590	12.130
7	37.700	20.410	63.760	7.120	3.157	1.263	2.215	2.347	2.468	19.050	124.300	44.020
8	70.390	18.880	49.530	10.250	2.891	1.204	2.000	2.012	2.319	16.200	96.670	38.800
9	64.400	17.320	62.120	7.653	2.742	1.193	2.557	1.907	2.242	14.040	53.580	104.300
10	36.680	16.780	75.100	7.298	2.652	1.170	2.247	1.940	2.105	14.970	43.580	132.400
11	28.550	36.260	51.800	6.897	2.494	1.311	13.560	1.606	1.979	39.210	41.030	105.300
12	22.210	32.680	58.890	6.468	2.149	2.070	77.330	1.693	1.919	29.550	117.200	97.190
13	18.400	30.180	39.020	6.125	2.265	1.870	25.960	2.917	1.802	31.830	100.900	60.400
14	16.590	23.040	33.270	5.656	2.221	1.375	25.070	2.937	1.712	26.160	85.790	81.060
15	34.080	19.950	101.000	5.522	2.218	1.229	16.550	5.925	1.718	22.720	59.250	78.900
16	111.600	17.310	92.820	5.272	2.254	1.233	12.270	3.144	1.655	39.350	51.730	70.470
17	77.900	15.720	61.230	4.995	2.139	1.165	9.714	2.562	1.614	37.310	50.120	85.400
18	61.970	14.420	43.950	4.840	2.076	2.365	8.104	3.979	1.546	30.160	58.710	61.470
19	48.630	12.680	41.430	4.612	2.040	3.246	6.780	3.467	1.595	25.270	54.270	170.000
20	38.170	11.330	32.000	4.427	2.030	1.932	5.789	2.564	1.740	16.880	45.640	97.780
21	34.560	15.330	38.170	4.270	2.072	1.546	5.126	2.168	2.211	36.460	67.420	66.540
22	32.700	19.450	27.910	4.165	2.815	2.336	4.590	2.137	2.249	39.990	60.730	47.950
23	26.630	12.880	23.870	3.903	2.596	6.278	4.230	2.229	2.193	30.220	55.170	50.290
24	26.710	11.770	21.070	3.692	2.238	4.351	4.015	2.342	12.840	44.260	63.740	54.570
25	24.830	16.350	18.340	3.546	2.031	3.678	3.669	2.094	10.620	20.490	55.550	42.180
26	39.890	13.660	16.050	3.408	1.845	9.491	3.249	2.486	7.515	17.240	45.080	35.430
27	29.160	13.970	14.190	3.286	1.756	6.750	2.985	2.863	4.970	14.320	30.670	29.480
28	27.260	19.720	12.550	3.187	1.663	5.362	2.764	2.257	12.460	12.250	30.590	24.210
29	24.700		11.280	3.126	1.609	5.605	2.646	2.073	10.990	10.990	24.300	20.670
30	21.050		10.050	3.074	1.508	4.099	2.507	2.637	10.050	9.886	20.420	17.980
31	18.170		9.077	1.477		1.477	2.565	2.652		9.246		16.380
Average	40.860	18.540	42.170	6.041	2.462	2.723	8.563	2.585	4.276	24.460	52.830	55.450
Lowest	16.590	11.330	9.077	3.074	1.477	1.165	2.000	1.693	1.346	9.246	11.200	12.130
Highest	111.600	38.260	101.000	17.120	4.265	9.491	77.330	5.925	14.970	58.460	124.300	170.000
Peak flow	127.600	55.380	143.900	23.890	5.538	12.480	162.200	7.727	25.400	71.350	215.200	241.100
Day of peak	16	13	15	7	6	17	12	15	24	17	6	19
Monthly total (million cu m)	109.40	44.84	112.90	15.66	6.59	7.06	22.94	5.92	11.09	64.96	136.90	148.50
Runoff (mm)	132	54	137	19	8	9	26	8	13	79	166	180
Rainfall (mm)	106	78	143	24	37	116	67	87	129	192	179	

## STATISTICS OF MONTHLY DATA FOR PREVIOUS RECORD (Oct 1958 to Dec 1981)

Mean flows:	Avg.	34.490	29.840	20.620	13.730	9.404	5.488	4.762	5.648	8.228	18.950	27.980	36.080
	Low	6.657	3.244	7.918	3.889	2.073	1.434	0.796	0.423	0.861	1.043	3.653	13.210
	(year)	1963	1959	1962	1974	1976	1976	1976	1976	1959	1978	1978	1963
	High	50.890	54.760	52.140	32.800	22.140	16.630	23.390	14.440	47.670	77.360	58.500	73.670
	(year)	1965	1970	1981	1966	1969	1972	1968	1965	1974	1980	1983	1965
Runoff:	Avg.	112	88	67	43	30	17	18	26	61	88	117	
	Low	22	10	26	12	7	5	3	1	3	11	43	
	High	165	160	169	103	72	52	76	47	150	164	239	
Rainfall:	Avg.	127	91	89	70	72	66	74	87	93	112	127	137
	Low	28	5	18	8	28	10	23	33	14	14	56	41
	High	216	173	183	145	144	164	152	140	247	278	239	271

## SUMMARY STATISTICS

	FOR 1982	FOR RECORD PRECEDING 1982	1982 AS % OF PRE-1982	FACTORS AFFECTING FLOW REGIME
Mean flow (m <sup>3</sup> /s)	21.610	17.690	122	* Reservoir(s) in catchment.
Lowest yearly mean		11.310	1964	* Abstraction for public water supplies.
Highest yearly mean		27.590	1960	* Augmentation from effluent returns.
Lowest monthly mean	2.462	0.423	Avg 1976	
Highest monthly mean	55.450	77.360	Oct 1960	
Lowest daily mean	1.165	0.200	28 Aug 1976	
Highest daily mean	170.000	363.800	4 Dec 1960	
Peak	241.100	644.900	4 Dec 1960	
10 Year	59.730	45.930	130	
50 Year	12.030	9.472	127	
95 Year	1.612	1.250	129	
Annual total (million cu m)	687.80	564.60	122	
Annual runoff (mm)	832	683	122	
Annual rainfall (mm)	1239	1145	108	
[1961-70 rainfall average (mm)]				

## STATION DESCRIPTION

Velocity-area station

## OPTION 4 TABLE OF MONTHLY MEAN GAUGED DISCHARGES

050001 TAW AT UMBRELEIGH

MONTHLY MEAN GAUGED DISCHARGES IN CUBIC METRES PER SECOND

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1979	30.916	32.905	44.410	15.654	12.801	7.679	1.956	11.910	5.314	9.371	36.082	51.477
1980	28.179	43.819	27.454	14.487	7.415	9.840	8.788	5.630	11.427	40.530	28.949	33.352
1981	29.826	18.857	52.143	7.777	19.551	9.113	2.748	7.209	9.697	47.732	24.212	46.547
1982	40.880	18.538	42.171	6.040	2.462	2.727	6.563	2.565	4.276	24.258	52.833	55.450
1983	48.920	19.180	14.436	17.895	36.998	4.422	1.650	0.836	3.745	14.976	11.134	46.906
1984	62.101	36.469	7.449	5.457	2.755	1.329	0.793	0.802	3.589	20.636	49.390	37.380
MEAN	40.134	27.961	31.344	11.218	12.747	5.893	4.083	3.995	6.292	26.251	33.767	45.152
MIN	28.179	18.857	7.449	5.457	2.255	1.329	0.793	0.802	3.245	9.371	11.134	33.352
MAX	62.101	43.819	52.143	17.895	36.998	9.840	8.788	11.910	11.427	47.732	52.833	55.450

THE SUMMARY RELATES EXCLUSIVELY TO THE YEARS SHOWN.

## OPTION 5 TABLE OF MONTHLY MEAN NATURALISED DISCHARGES

039001 THAMES AT KINGSTON

MONTHLY MEAN NATURALISED DISCHARGES IN CUBIC METRES PER SECOND

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1979	125.200	168.700	203.200	185.700	135.900	108.600	45.960	42.090	30.640	36.450	46.670	145.600
1980	145.100	162.200	137.600	106.700	49.660	45.830	40.200	37.400	38.010	75.420	75.540	90.620
1981	88.970	60.530	199.300	123.900	118.400	84.170	40.660	44.610	51.900	95.810	78.220	142.200
1982	198.100	123.700	187.000	90.960	55.630	46.920	36.690	31.790	31.940	89.340	129.600	177.100
1983	126.500	110.900	84.870	128.400	137.400	82.660	43.670	34.580	35.280	38.280	39.100	78.590
1984	144.600	129.200	105.900	67.880	61.000	44.490	26.700	26.100	31.600	43.130	104.900	126.100
MEAN	138.078	125.872	152.828	127.253	92.998	68.776	39.313	36.032	36.562	62.572	79.005	126.702
MIN	88.970	60.530	84.870	67.880	49.660	44.490	26.700	26.100	30.640	36.450	39.100	78.590
MAX	198.100	168.700	203.200	185.700	137.400	108.600	45.960	44.610	51.900	95.810	129.600	177.100

THE SUMMARY RELATES EXCLUSIVELY TO THE YEARS SHOWN.

## OPTION 6 YEARBOOK DATA TABULATION (MONTHLY)

5 0 0 0 1

U m b r e l e i g h

1 9 8 2

Measuring authority: S W A

Grid reference: 55608237

Catchment area (sq km): 816.2

First year: 1958

Level estn. (m OD): 14.14

Max alt. (m OD): 604

## HYDROMETRIC STATISTICS FOR 1982

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Flows	Avg.	40.860	18.540	42.170	6.041	2.462	2.723	6.563	2.585	4.278	24.260	52.830	55.450	21.730
(m <sup>3</sup> /s):	Peak	127.60	55.38	143.90	23.89	5.54	12.48	162.20	7.73	25.40	72.35	215.20	241.10	241.10
Runoff	(mm)	132	54	137	19	8	9	28	8	13	79	166	180	833
Rainfall	(mm)	106	78	143	24	17	116	67	67	81	129	192	179	1239

## MONTHLY AND YEARLY STATISTICS FOR PREVIOUS RECORD (Oct 1958 to Dec 1981)

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Mean	Avg.	34.490	29.840	20.610	13.730	9.404	5.468	4.782	5.648	6.228	18.950	27.980	36.080	17.891
flows	Low	6.857	3.244	7.918	3.889	2.073	1.434	0.799	0.423	0.881	1.053	3.653	13.210	11.312
(m <sup>3</sup> /s):	High	50.890	54.760	52.140	32.800	22.140	16.636	23.390	14.440	47.670	77.360	58.500	73.670	27.367
Peak flow	(m <sup>3</sup> /s)	580.60	278.40	339.90	149.40	91.74	160.10	204.30	181.90	312.30	422.10	249.70	644.90	644.90
Runoff	(mm)	112	88	67	43	32	17	16	18	26	61	88	117	683
Rainfall	(mm)	127	91	89	70	72	66	74	87	93	112	127	137	1145

Factors affecting flow regime: S P C  
Station type: VA1982 runoff is 122% of previous mean  
rainfall 108%

### OPTION 7 TABLE OF MONTHLY EXTREME FLOWS

050001 TAW AT UMBERLEIGH

TABLE OF MONTHLY INSTANTANEOUS PEAK DISCHARGES AND  
HIGHEST AND LOWEST DAILY MEAN GAUGED DISCHARGES  
IN CUBIC METRES PER SECOND

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1978 HI	192.600	216.700	97.510	53.100	70.040	3.504	9.963	26.430	1.737	1.386	21.980	94.700
HO	116.900	184.000	87.000	46.030	37.000	3.037	5.019	11.110	1.699	1.314	12.040	71.940
LO	15.560	6.162	13.490	5.923	2.752	1.382	1.656	1.709	1.035	0.889	0.881	3.926
1979 HI	95.310	150.800	128.700	30.700	55.430	20.550	5.994	69.190	18.710	61.830	85.940	354.100
HO	66.420	121.900	92.120	26.330	31.630	14.630	4.143	37.570	10.640	35.450	67.010	208.400
LO	12.430	10.040	11.390	8.787	6.746	3.249	1.201	1.541	2.799	3.894	12.730	13.710
1980 HI	113.400	170.200	127.300	136.600	5.565	84.430	32.830	20.430	68.730	160.400	173.000	106.300
HO	85.420	123.600	87.090	94.790	4.793	52.430	19.620	12.750	41.480	119.300	114.600	82.790
LO	12.630	13.980	10.330	3.365	1.585	1.323	4.902	3.156	4.311	7.634	6.078	10.270
1981 HI	149.700	80.990	339.900	32.560	50.860	54.120	14.080	11.550	95.070	123.900	90.340	256.000
HO	80.200	43.450	223.400	24.990	33.340	29.250	8.875	8.561	42.080	105.200	55.820	136.100
LO	11.690	7.799	15.890	3.320	8.922	3.035	1.814	1.224	1.078	21.270	7.235	16.110
1982 HI	127.600	55.380	143.900	23.690	5.538	12.480	162.200	7.727	25.400	72.350	215.200	241.100
HO	111.600	38.260	101.000	17.120	4.265	9.491	77.330	5.925	14.970	56.480	124.300	172.000
LO	16.590	11.330	9.077	3.074	1.477	1.165	2.000	1.693	1.546	9.246	1.1200	12.130
MAX HI	192.600	216.700	339.900	136.600	70.040	84.430	162.200	69.190	95.070	160.400	215.200	354.100
MAX HO	116.900	184.000	223.400	94.790	37.000	52.430	77.330	37.570	42.080	119.300	124.300	208.400
MIN LO	15.560	6.162	9.077	3.074	1.477	1.165	1.201	1.224	1.035	0.889	0.881	3.926

THE SUMMARY RELATES EXCLUSIVELY TO THE YEARS SHOWN.

HI = HIGHEST INSTANTANEOUS DISCHARGE  
HO = HIGHEST DAILY MEAN GAUGED DISCHARGE  
LO = LOWEST DAILY MEAN GAUGED DISCHARGE

### OPTION 8 TABLE OF CATCHMENT MONTHLY RAINFALL

050001 TAW AT UMBERLEIGH

AREAL AVERAGE RAINFALL EXPRESSED IN MM  
& AS A PERCENTAGE OF LONG TERM MEAN

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1978 RAINFALL (MM)	160	146	114	51	49	61	95	42	39	14	68	174
% 1941-70 MEAN	126	159	144	71	60	100	116	41	38	12	51	128
1979 RAINFALL (MM)	110	72	164	68	102	52	45	126	49	100	122	192
% 1941-70 MEAN	87	78	208	94	126	85	55	124	47	86	91	141
1980 RAINFALL (MM)	99	130	131	24	43	164	65	69	101	175	107	115
% 1941-70 MEAN	78	141	166	33	53	269	79	68	97	155	80	85
1981 RAINFALL (MM)	90	76	183	47	126	42	78	35	153	200	85	173
% 1941-70 MEAN	71	83	232	65	156	69	95	34	147	177	63	127
1982 RAINFALL (MM)	106	78	143	24	37	116	67	87	81	129	192	179
% 1941-70 MEAN	83	85	181	33	46	190	82	85	78	114	143	132
RAINFALL (MM)												
MEAN	113	100	147	43	71	87	70	72	85	124	115	167
MIN	90	72	114	24	37	42	45	35	39	14	68	115
MAX	160	146	183	68	126	164	95	126	153	200	192	192

THE SUMMARY RELATES EXCLUSIVELY TO THE YEARS SHOWN.

### OPTION 9 TABLE OF CATCHMENT MONTHLY AREAL RAINFALL AND RUNOFF

050001 TAW AT UMBERLEIGH

MONTHLY RAINFALL AND  
RUNOFF (DERIVED FROM GAUGED FLOWS)  
EXPRESSED IN MM OVER THE CATCHMENT

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1978 RAINFALL	160	146	114	51	49	61	95	42	39	14	68	174
RUNOFF	133	143	105	40	33	7	10	13	4	3	11	97
1979 RAINFALL	110	72	164	68	102	52	45	126	49	100	122	192
RUNOFF	100	96	144	49	42	25	6	39	17	30	113	167
1980 RAINFALL	99	130	131	24	43	164	65	69	101	175	107	115
RUNOFF	91	133	89	45	8	31	28	18	36	131	91	108
1981 RAINFALL	90	76	183	47	126	42	78	35	153	200	85	173
RUNOFF	97	49	169	24	63	29	9	7	31	155	76	150
1982 RAINFALL	106	78	143	24	37	116	67	87	81	129	192	179
RUNOFF	132	54	137	19	8	9	28	8	13	79	166	180
RAINFALL												
MEAN	113	100	147	43	71	87	70	72	85	124	115	167
MIN	90	72	114	24	37	42	45	35	39	14	68	115
MAX	160	146	183	68	126	164	95	126	153	200	192	192
RUNOFF												
MEAN	111	95	129	35	31	20	16	17	20	80	91	140
MIN	91	49	89	19	8	7	6	7	4	3	11	97
MAX	133	143	169	49	63	31	28	39	36	155	166	180
% RUNOFF												
MEAN	98	95	88	81	44	23	23	24	24	65	79	84
MIN	83	64	68	51	19	8	11	9	10	21	16	56
MAX	>100	>100	96	>100	67	69	43	31	36	78	93	>100

THE SUMMARY RELATES EXCLUSIVELY TO THE YEARS SHOWN.

## OPTION 10 HYDROGRAPH OF DAILY MEAN FLOWS

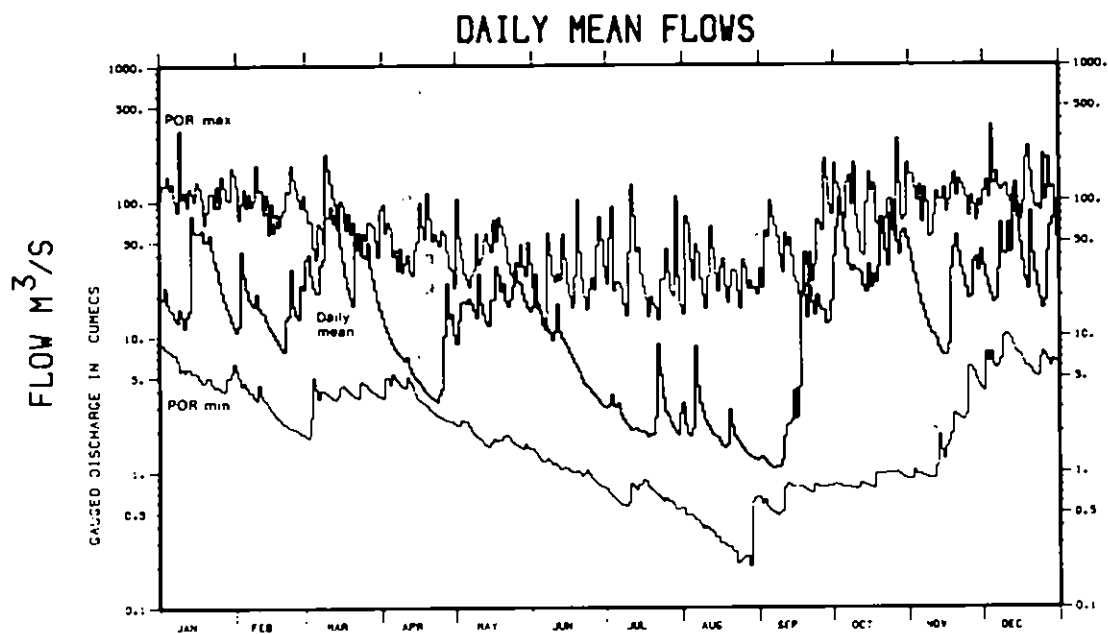
050001

TAW AT UMBERLEIGH

1981

Previous record 1958-1980

Catchment area 826.2 km



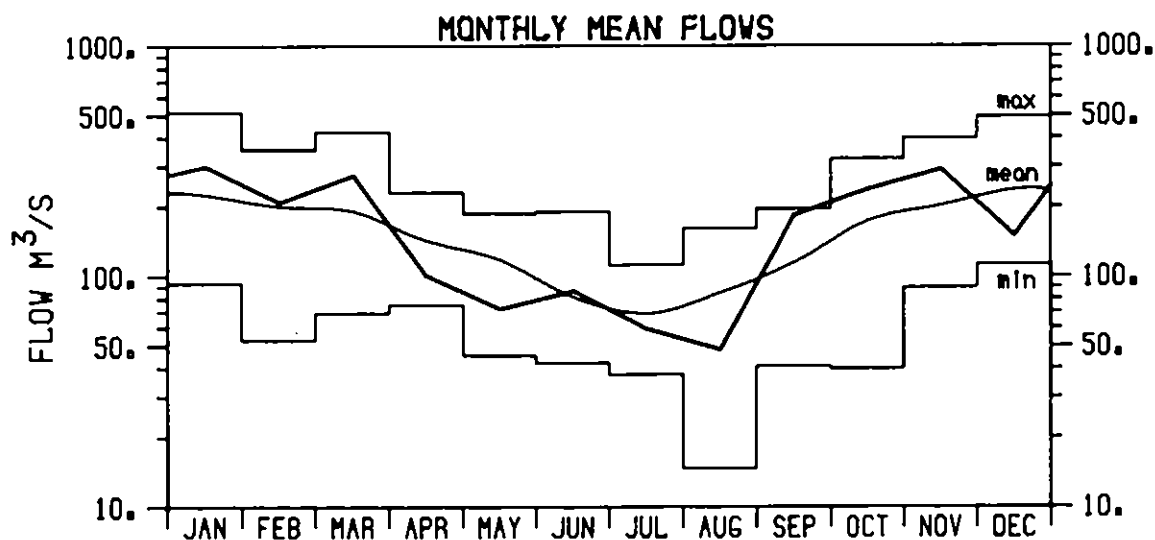
## OPTION 11 HYDROGRAPH OF MONTHLY MEAN FLOWS

15006

TAY AT BALLATHIE

1981

Previous record 1953-1980

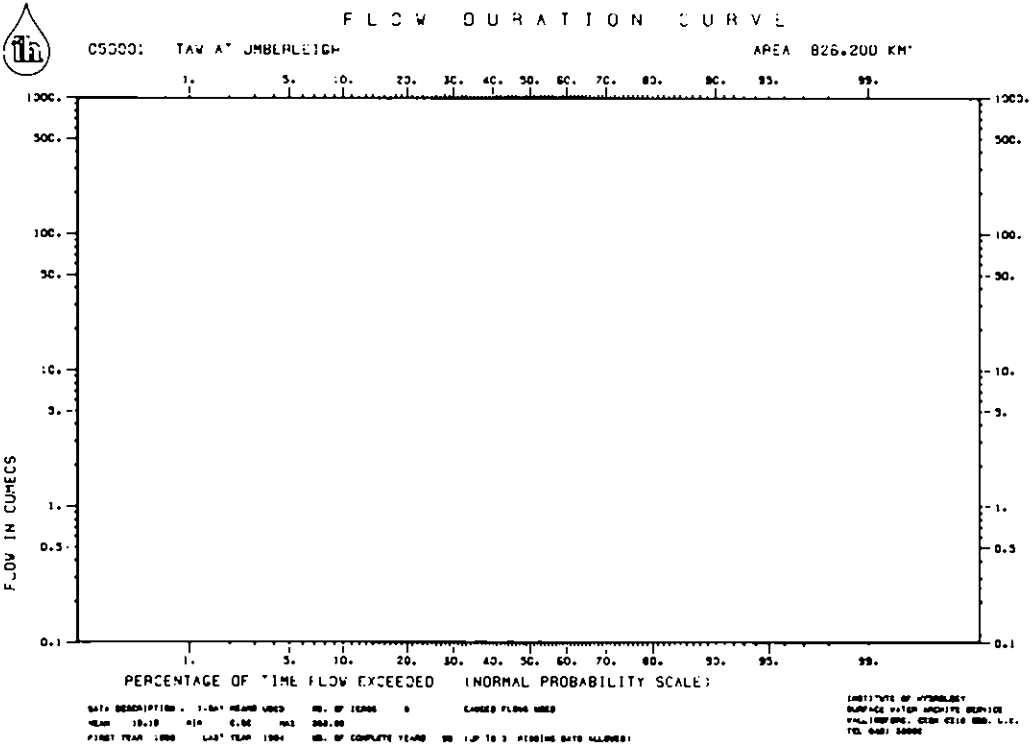
Catchment area 4587.1 km<sup>2</sup>



OPTION 12 FLOW DURATION STATISTICS

OPTION 12 INFORMATION TABLE

050001	TAW AT JMBERLEIGH										CALCULATED FLOWS USED
1 DAY MEAN FLOW EXCEEDED STATED AMOUNT IN CUMECs FOR GIVEN PERCENTAGE OF TIME											
		1	2	3	4	5	6	7	8	9	
	112.407	88.953	78.112	70.827	64.442	59.554	56.125	53.098	50.148		
10	47.474	44.176	41.967	39.864	37.968	36.202	34.286	32.813	31.533	30.169	
20	28.878	27.620	26.430	25.366	24.302	23.328	22.350	21.282	20.533	19.756	
30	19.052	18.294	17.592	16.975	16.430	15.836	15.283	14.737	14.189	13.691	
40	13.254	12.847	12.340	11.914	11.529	11.129	10.807	10.436	10.088	9.725	
50	9.368	9.020	8.678	8.390	8.073	7.801	7.535	7.219	6.945	6.673	
60	6.428	6.187	5.971	5.755	5.522	5.313	5.090	4.900	4.691	4.492	
70	4.292	4.101	3.916	3.738	3.564	3.398	3.239	3.055	2.915	2.783	
80	2.659	2.534	2.418	2.287	2.178	2.071	1.976	1.890	1.822	1.734	
90	1.647	1.567	1.493	1.391	1.268	1.141	1.019	0.941	0.868	0.685	
MAX FLOW= 363.800 MIN FLOW= 0.200 MEAN FLOW= 18.160 CATCHMENT AREA 826.2 SQ.KM											
NUMBER OF ZEROS= 0 NUMBER OF VALUES USED= 9497											
FIRST YEAR USED= 1959 LAST YEAR USED= 1984											
NUMBER OF YEARS USED= 26											
ONLY YEARS CONTAINING NOT MORE THAN 5 MISSING DAYS USED											



OPTION 13 TABLE OF GAUGING STATION REFERENCE INFORMATION

NUMBER	RIVER	STATION	GRID REF	OPERATOR	ALIGNED 1ST YEAR	LAST YEAR	STN TYPE	BASIN AREA SQ KM	ELEV STN MUD	MAX ALT MUD	ABSTRACT- TIDALS & RETURNED	10
048001	FOULTY	TRELLIVESTEPS	SK227696	SWGA	1969		CC	36.6	167.66	420	SAPL	
048003	FAL	TRELCONY	SK971447	SWGA	1977		FLVA	67.0	6.95	226	UT	
048004	WARLEGGAN	TRENOUFFE	SK159674	SWGA	1969		CC	25.3	70.76	306	C	
048005	KENWYH	TREURO	SK20450	SWGA	1966		CC	19.1	7.16	157	C	
048006	CURFE	HELLSTON	SK654773	SWGA	1968		VA	40.1	4.69	251	PG 1	
048007	KENALL	PONSACOTH	SK762377	SWGA	1966		C	26.6	13.56	251	SAPL 1	
048009	ST NLOT	CRAIGSHILL WOOD	SK164662	SWGA	1971		CC	22.7	70.53	339	CL	
048010	SEATON	TREBROWNBRIDGE	SK799596	SWGA	1972		CC	36.1	26.60	369	C 1	
048011	FOULTY	RESTORNEIL TWO	SK098624	SWGA	1972		CC	169.1	9.24	470	SHMPL 1	

OPTION 14 TABLE OF HYDROMETRIC STATISTICS

STATION NUMBER	TERM	ADP 1941 1970	ANNUAL RAIN MM	ANNUAL GAUGED RUNOFF MM	MEAN GAUGED FLOW CU M/S	NO. YRS REC	2/PUR MEAN FLOW	HIGHEST DAILY MEAN CU M/S	DATE	LOWEST DAILY MEAN CU M/S	DATE	10 YEAR FILL	50 YEAR FILL	95 YEAR FILL
021005	PUR	1320	1250	676	7.99	15		185.50	30/01/74	1.19	07/10/72	16.70	5.39	1.97
	1977		1436	829	9.80	123		92.38	31/10	1.39	22/06	20.76	7.03	1.65
	1978		1317	757	8.95	112		75.74	15/11	1.75	19/06	20.23	6.03	2.25
	1979		1387	913	10.60	135		82.15	26/11	2.23	23/07	24.29	5.77	2.60
	1980		1286	793	9.38	117		49.29	24/11	2.01	01/06	15.96	7.00	2.19
071006	PUR	1227	1180	594	32.99	15		393.40	30/01/74	3.46	07/10/72	66.79	22.22	6.73
	1977		1277	845	40.20	122		355.30	31/10	4.13	18/06	64.44	29.40	5.44
	1978		1244	731	34.77	105		325.30	15/11	5.42	20/06	78.17	22.26	7.61
	1979		1233	881	41.90	177		262.70	25/11	7.21	23/07	93.82	27.66	8.51
	1980		1187	746	35.48	108		77.60	20/11	6.37	19/05	76.63	24.91	7.46
21007	PUR	1417	1321	676	13.59	15		209.80	30/01/74	0.57	07/09/76	31.58	8.50	1.77
	1977		1524	1106	17.54	126		286.30	31/10	0.67	18/06	41.40	10.86	1.11
	1978		1394	886	14.02	101		210.60	15/11	0.97	19/07	52.60	8.24	1.21
	1979		1422	1105	17.48	125		120.90	26/11	1.42	24/07	41.36	10.63	1.63
	1980		1366	944	14.53	107		96.07	20/11	1.18	19/05	35.27	9.16	1.55
21008	PUR	1006	949	504	17.74	15		306.94	30/01/74	1.71	22/06/76	36.44	11.05	2.89
	1977		1019	604	21.25	140		167.20	31/10	1.99	17/06	44.36	14.61	2.56
	1978		1008	541	19.05	107		177.90	15/11	2.04	20/07	43.34	11.69	2.53
	1979		1065	693	24.40	136		273.10	25/07	2.22	05/06	55.84	15.31	3.97
	1980		982	585	20.67	116		124.00	20/11	3.35	01/06	43.15	14.30	4.14

NOTE: This example illustrates only a limited amount of the statistical information that may be output.

OPTION 15 GAUGING STATION DESCRIPTION

48001	FOULTY AT TRELLIVESTEPS	Compound Crump weir. Total crest breadth 7.0 m. Low flow crest breadth 1.5 m. Unreliable records from 1951
48003	FAL AT TRELCONY	Velocity-area station with low flow flume. Unreliable records from 1951
48004	WARLEGGAN AT TRENOUFFE	Compound Crump weir. Total crest breadth 10.0 m. Low flow crest breadth 1.5 m
48005	KENWYH AT TREURO	Compound Crump weir. Total crest breadth 4.3 m. Low flow crest breadth 1.2 m
48006	CURFE AT HELLSTON	Velocity-area station. Modified in 1977 by the construction of a low level bed control
48007	KENALL AT PONSACOTH	Single crest Crump weir 4.9 m broad
48009	ST NLOT AT CRAIGSHILL WOOD	Compound Crump weir. Total crest breadth 7.2 m. Low flow crest breadth 1.8 m
48010	SEATON AT TREBROWNBRIDGE	Compound Crump weir. Total crest breadth 11.0 m. Low flow crest breadth 3.0 m
48011	FOULTY AT RESTORNEIL TWO	Compound Crump weir. Total crest breadth 16.5 m. Low flow crest breadth 3.5 m

OPTION 16 RIVER FLOW PATTERN PLOTS

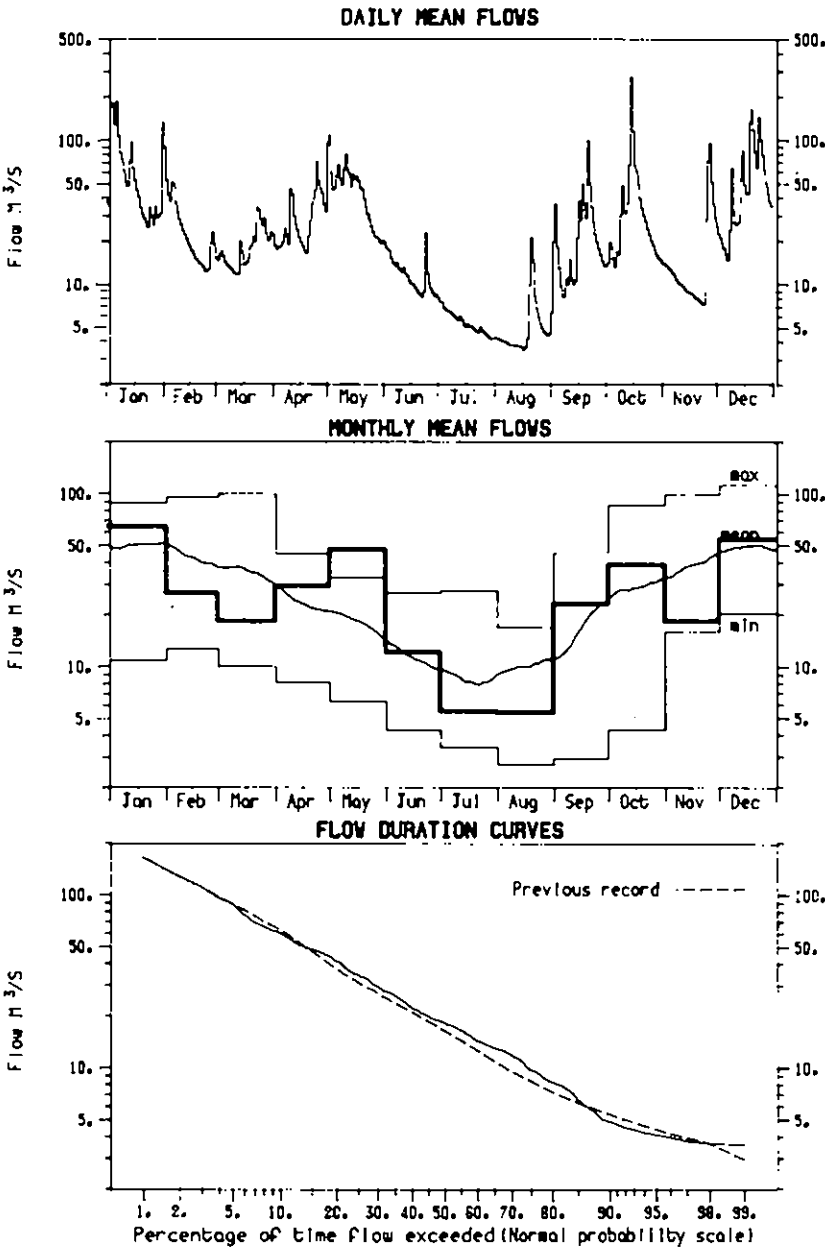
56001

USK AT CHAIN BRIDGE

1983

Previous record 1958-1982

Catchment area 911.7km<sup>2</sup>



Station number	River name	National Grid reference	Measuring authority	Area (sq km)	Station number	River name	National Grid reference	Measuring authority	Area (sq km)
002001	Helmisdale	NC 997181	FRPB	551.4	019006	Water Esk	NT 228732	FRPB	107.0
003001	Shan Carron	NC 581062	NSHE	494.8	019007	South Esk	NT 339723	FRPB	330.0
003002	Oykell	NC 490921	FRPB	241.1	019008	Bog Burn	NT 325623	FRPB	112.0
003003	Cassidy	NC 403001	FRPB	330.7	019009	North Esk	NT 026591	FRPB	8.5
003004	Shan	NC 472022	FRPB	187.5	019010	Water of Leth	NT 213707	FRPB	16.2
003005	Shan	NH 574974	FRPB	575.0	019011	Brox Burn	NT 333678	FRPB	137.0
004001	Conon	NH 482547	FRPB	961.8	019012	Water of Leth	NT 212688	FRPB	72.0
004003	Alness	NH 654695	FRPB	201.0	019014	Brox Burn	NT 114732	FRPB	34.1
004004	Blackwater	NH 455563	FRPB	336.7	019017	Gingar Burn	NT 161733	FRPB	38.8
005001	Beauly	NH 426405	NSHE	849.5	020001	Tyne	NT 591768	FRPB	307.0
006001	Ness	NH 639410	NSHE	1797.3	020002	West Peffer Burn	NT 489811	FRPB	26.7
006003	Moriston	NH 416169	RFR	391.0	020003	Tyne	NT 456689	FRPB	161.0
006006	Alt Bhalaradh	NH 377168	NSHE	27.5	020004	East Peffer Burn	NT 610824	FRPB	31.1
006007	Ness	NH 645427	FRPB	1839.1	020005	Burns Water	NT 457688	FRPB	93.0
006008	Enrick	NH 450300	FRPB	105.9	020006	Bell Water	NT 645768	FRPB	51.8
007001	Furthorn	NH 826337	FRPB	415.6	020007	Gifford Water	NT 511717	FRPB	64.0
007002	Furthorn	NH 818583	FRPB	781.9	020008	Brox Burn	NT 697776	FRPB	19.7
007003	Lossie	NH 198626	NEFPB	216.0	021001	Fruid Water	NT 088205	LRWD	23.7
007004	Nairn	NH 882551	FRPB	313.0	021002	Whitadder Water	NT 663633	LRWD	45.6
007005	Dune	NH 005480	FRPB	165.0	021003	Tweed	NT 257400	TWRP	694.0
008001	Spey	NH 278439	NEFPB	2654.7	021004	Watch Water	NT 664565	BRWD	10.7
008002	Spey	NH 881087	NEFPB	1011.7	021005	Tweed	NT 206397	TWRP	373.0
008003	Spey	NH 759996	NEFPB	533.8	021006	Tweed	NT 498334	TWRP	1500.0
008004	Avon	NH 188352	NEFPB	542.8	021007	Ettrick Water	NT 486315	TWRP	499.0
008005	Spey	NH 946191	NEFPB	1267.8	021008	Tavor	NT 702280	TWRP	1110.0
008006	Spey	NH 318518	NEFPB	2861.2	021009	Tweed	NT 898477	TWRP	4390.0
008007	Spey	NH 687962	NEFPB	400.4	021010	Tweed	NT 588320	TWRP	2080.0
008008	Tromie	NH 789995	NEFPB	130.3	021011	Yarrow Water	NT 439277	TWRP	231.0
008009	Dulan	NH 977247	NEFPB	272.7	021012	Tavor	NT 522159	TWRP	323.0
008010	Spey	NH 034268	NEFPB	1748.8	021013	Gala Water	NT 473374	TWRP	207.0
009001	Deveron	NH 532464	NEFPB	441.6	021014	Tweed	NT 109285	TWRP	139.0
009002	Deveron	NH 705498	NEFPB	954.9	021015	Leader Water	NT 565388	TWRP	239.0
009003	Isla	NH 434506	NEFPB	176.1	021016	Eye Water	NT 942635	TWRP	119.0
009004	Bogge	NH 519373	NEFPB	179.0	021017	Ettrick Water	NT 234132	TWRP	37.5
010001	Ythan	NH 974308	NEFPB	448.1	021018	Lyne Water	NT 209401	TWRP	61.6
010002	Ugie	NH 101485	NEFPB	325.0	021019	Manor Water	NT 217369	TWRP	155.0
010003	Ythan	NH 947303	NEFPB	523.0	021020	Yarrow Water	NT 309247	TWRP	155.0
011001	Don	NH 887141	NEFPB	1273.0	021021	Tweed	NT 752354	TWRP	3330.0
011002	Don	NH 756201	GWWD	787.0	021022	Whitadder Water	NT 881550	TWRP	503.0
011003	Don	NH 566170	NEFPB	499.0	021023	Leet Water	NT 883396	TWRP	113.0
012001	Don	NH 635956	NEFPB	1370.0	021024	Jed Water	NT 655214	TWRP	139.0
012002	Dee	NH 798983	NEFPB	1844.0	021025	Ale Water	NT 334244	TWRP	174.0
012003	Dee	NH 343965	NEFPB	690.0	021026	Tine Water	NT 278138	TWRP	31.0
012004	Garnock Burn	NH 374956	NEFPB	30.3	021027	Blackadder Water	NT 826530	TWRP	159.0
012005	Muck	NH 364947	NEFPB	10.0	021028	Megget Water	NT 231232	TWRP	56.2
012006	Garn	NH 352971	NEFPB	150.0	021029	Ta	NT 927396	NWA	648.0
012007	Dee	NH 098895	NEFPB	289.0	021030	Glen	NT 919310	NWA	198.9
013001	Bervie	NH 826733	NEFPB	123.0	021031	Yarrow Water	NT 288744	TWRP	116.0
013002	Luther Water	NH 660668	TRPB	138.0	022001	Coquet	NH 734044	NWA	569.8
013003	South Esk	NH 583593	TRPB	487.0	022002	Coquet	NT 870083	NWA	59.5
013004	Lunan Water	NH 655494	TRPB	124.0	022003	Usway Burn	NT 886077	NWA	21.4
013005	North Esk	NH 689640	TRPB	730.0	022004	Aln	NT 211129	NWA	205.0
013006	South Esk	NH 600596	TRPB	490.0	022005	Blyth	NH 243800	NWA	269.4
014001	Eden	NH 415158	TRPB	307.4	022006	Wansbeck	NH 175858	NWA	287.3
014002	Oughly Water	NH 477374	TRPB	126.9	022007	Alwyn	NT 925063	NWA	27.7
014003	Motray Water	NH 441224	TRPB	52.0	022008	Coquet	NH 067016	NWA	346.0
015001	Isla	NH 187647	TRWS	70.7	023001	Tyne	NH 038617	NWA	2175.6
015002	Newton Burn	NH 230605	TRWS	15.4	023002	Derwent	NH 041508	NWA	118.0
015003	Tay	NH 082395	TRPB	3211.0	023003	North Tyne	NH 906737	NWA	1007.5
015004	Inver	NH 280559	TRWS	24.7	023004	South Tyne	NH 856647	NWA	751.1
015005	Melgan	NH 275558	TRWS	40.9	023005	North Tyne	NH 776881	NWA	284.9
015006	Tay	NH 147367	TRPB	4587.7	023006	South Tyne	NH 672611	NWA	321.9
015007	Tay	NH 924534	TRPB	1749.4	023007	Derwent	NH 168581	NWA	242.1
015008	Dean Water	NH 340479	TRPB	177.1	023008	Rede	NH 888832	NWA	343.8
015009	Isla	NH 295466	TRPB	366.5	023009	South Tyne	NH 716465	NWA	18.5
015010	Lyon	NH 786486	TRPB	391.1	023010	Tarsart Burn	NH 789879	NWA	96.0
015011	Tummel	NH 940577	TRPB	1649.0	023011	Kirkcubbin Burn	NH 644946	NWA	58.8
015012	Alnford	NH 067258	TRPB	174.8	023012	East Allen	NH 802583	NWA	88.0
015013	Tay	NH 787467	TRPB	600.9	023013	West Allen	NH 791583	NWA	75.1
015014	Braan	NH 979406	TRPB	197.0	023014	North Tyne	NH 631931	NWA	27.0
015015	Lyon	NH 534448	NSHE	161.4	023015	North Tyne	NH 924777	NGWC	1043.8
015016	Braan	NH 014422	TRPB	210.0	024001	Wear	NH 264376	NWA	657.8
015017	Dochart	NH 567320	TRPB	239.0	024002	Gauness	NH 215306	NWA	93.0
015018	Erchi	NH 174477	TRPB	432.0	024003	Wear	NH 984391	NWA	171.9
016001	Earn	NH 933167	TRPB	590.5	024004	Bedburn Beck	NH 183322	NWA	74.9
016002	Fair	NH 754216	TRPB	176.9	024005	Brownie	NH 259387	NWA	178.5
016003	Ruchel Water	NH 764204	TRPB	99.5	024006	Rookhope Burn	NH 952390	NWA	36.5
016004	Earn	NH 043184	TRPB	782.2	024007	Brownie	NH 654622	NWA	44.8
017001	Carron	NH 832820	FRPB	122.3	024008	Wear	NH 174309	NWA	455.0
017002	Leven	NH 369006	FRPB	424.0	024009	Wear	NH 283512	NWA	1008.3
017003	Bonny Water	NH 824804	FRPB	50.5	025001	Tees	NH 259137	NWA	818.4
017004	Ore	NH 330997	FRPB	162.0	025002	Tees	NH 932260	NWA	217.3
017005	Avon	NH 952797	FRPB	195.3	025003	Trout Beck	NH 759336	NWA	11.4
017012	Red Burn	NH 788780	FRPB	22.0	025004	Skerne	NH 284129	NWA	250.1
017014	Leven	NH 172993	FRPB	158.0	025005	Leven	NH 445122	NWA	196.3
018001	Alfian Water	NH 792053	FRPB	161.0	025006	Greta	NH 034122	NWA	86.1
018002	Devon	NH 858960	FRPB	181.0	025007	Crow Beck	NH 282101	NWA	78.2
018003	Tech	NH 725011	FRPB	518.0	025008	Tees	NH 047166	NWA	509.2
018005	Alfian Water	NH 786980	FRPB	210.0	025009	Tees	NH 384105	NWA	1264.0
018007	Devon	NH 011018	FRPB	69.5	025010	Bydale Beck	NH 260156	NWA	31.1
018008	Lenny	NH 585096	FRPB	190.0	025011	Langdon Beck	NH 852309	NWA	13.0
018010	Forth	NH 714953	FRPB	397.0	025012	Harwood Beck	NH 849309	NWA	25.1
018011	Forth	NH 775955	FRPB	1036.0	025013	Brigham Beck	NH 408237	NWA	61.4
018012	Airdoch Burn	NH 779008	FRPB	48.0	025014	Mordon Still	NH 323274	NWA	2.5
018013	Black Devon	NH 914924	FRPB	67.0	025015	Woodham Burn	NH 285263	NWA	29.1
018014	Bannockburn	NH 812908	FRPB	23.7	025016	Tees	NH 950250	NWA	242.1
018015	fas Gobhan	NH 607070	FRPB	202.0	025017	Leven	NH 585087	NWA	14.8
019001	Almond	NH 165752	FRPB	369.0	025018	Skerne	NH 292738	NWA	147.0
019002	Almond	NH 004652	FRPB	43.8	025019	Skerne	NH 318285	NWA	70.1
019003	Brech Water	NH 014639	FRPB	51.8	025020	Balder	NH 931182	NWA	20.4
019004	North Esk	NH 252616	FRPB	81.6	025021	Tees	NH 813288	NWA	58.2
019005	Almond	NH 086686	FRPB	229.0	025022	Chapel Beck	NH 599163	NWA	13.4
					025023	Hunderbeck	NH 933181	FBA	8.6
					025024	Thorsgill	NH 047151	FBA	4.9
					025025	Carl Beck	NH 945229	FBA	2.2
					025026	Greater Egglethop	NH 985287	FBA	11.7
					026001	West Beck	TA 064560	YWA	192.0
					026002	Hull	TA 080498	YWA	378.1
					026003	Foston Beck	TA 093548	YWA	57.2
					026004	Gypsy Race	TA 065675	YWA	253.8
					026005	Gypsy Race	TA 037677	YWA	240.0
					026006	Finswell Beck	TA 009575	YWA	136.0

Station number	River name	National Grid reference	Measuring authority	Area (sq km)	Station number	River name	National Grid reference	Measuring authority	Area (sq km)
027001	Nidd	SE 428530	YWA	484.3	028051	Sour	SP 551985	STWA	202.0
027002	Wearfe	SE 422473	YWA	758.9	028052	Sow	SJ 883270	STWA	163.0
027003	Aire	SF 534755	YWA	1932.1	028053	Pena	SJ 923144	STWA	272.0
027004	Cader	SE 365220	YWA	899.0	028054	Sence	SP 566985	STWA	133.0
027005	Nidd	SE 416883	YWA	113.7	028055	Ecclesbourne	SK 320447	STWA	50.4
027006	Don	SK 390910	YWA	373.0	028056	Rothley Brook	SK 580121	STWA	94.0
027007	Ure	SE 356671	YWA	914.6	028058	Hemmore Brook	SK 188488	STWA	42.0
027008	Swale	SE 415748	YWA	1345.6	028059	Maun	SK 548623	STWA	28.8
027009	Cuse	SE 568554	YWA	3315.0	028060	Dever Beck	SK 653479	STWA	69.0
027010	Hodge Beck	SE 627944	YWA	18.9	028061	Churnet	SJ 983520	STWA	139.0
027011	Washburn	SE 219488	YWA	87.3	028062	Cole	SK 838774	STWA	130.0
027012	Hebden Water	SD 973309	YWA	36.0	028067	Derwent	SK 438316	STWA	1177.5
027013	Ewden Beck	SK 289957	YWA	26.4	028070	Burbage Brook	SK 259804	STWA	9.1
027014	Rye	SE 743771	YWA	679.0	028072	Greet	SK 711541	STWA	46.2
027015	Derwent	SE 714557	YWA	1634.3	028073	Ashop	SK 171896	STWA	42.0
027016	Little Don	SK 253992	YWA	38.6	028074	Sour	SK 492763	STWA	292.0
027017	Luxley	SK 286906	YWA	43.5	028075	Derwent	SK 169951	STWA	17.0
027018	Ryburn	SF 025187	YWA	10.7	028077	Spenner Outfall	SK 395345	STWA	
027019	Boon Dain Cough	SE 033166	YWA	15.9	028079	Meece	SJ 874291	STWA	86.3
027020	Scout Dale Stream	SE 236047	YWA	15.2	028080	Tame	SP 207937	STWA	799.0
027021	Don	SE 569040	YWA	1256.2	028081	Tame	SP 012958	STWA	169.0
027022	Don	SK 477928	YWA	826.0	028082	Scar	SP 542973	STWA	183.9
027023	Deane	SE 350073	YWA	18.9					
027024	Swale	NZ 146006	YWA	381.0	029001	Wearfe Beck	TA 253016	AWA	108.3
027025	Rother	SK 432857	YWA	352.3	029002	Great Eau	TF 416793	AWA	77.4
027026	Rother	SK 394744	YWA	165.0	029003	Lud	TF 337879	AWA	55.2
027027	Wharfe	SE 112481	YWA	443.0	029004	Anchorne	TF 032911	AWA	54.7
027028	Aire	SE 281340	YWA	691.5	029005	Rasa	TF 032972	AWA	69.2
027029	Culter	SF 174719	YWA	341.9	029009	Anchorne	TF 033877	AWA	27.2
027030	Deane	SF 477020	YWA	110.8					
027031	Cole	SE 174199	YWA	245.0	030001	Witham	SK 842480	AWA	297.9
027032	Hebden Beck	SF 025643	YWA	6.8	030002	Barrocks Eau	TF 066766	AWA	210.1
027033	Sea Cut	TA 028908	YWA	33.2	030003	Bain	TF 241611	AWA	197.1
027034	Ure	SE 190860	YWA	570.2	030004	Parthay Lynn	TF 042676	AWA	61.6
027035	Aire	SF 013457	YWA	282.3	030005	Warrant	SK 927335	AWA	126.1
027036	Derwent	SE 789715	YWA	1421.0	030006	Sea	TF 088485	AWA	48.4
027038	Costa Beck	SE 774836	YWA	7.8	030007	Burn	TF 246795	AWA	62.5
027039	Holme	SE 120669	YWA	9.1	030007	Stamford Beck	TF 177739	AWA	37.4
027040	Don Lea	SK 443746	YWA	67.9	030008	Horsington Beck	TF 042696	AWA	21.2
027041	Derwent	SE 731587	YWA	1586.0	030009	Porton Lock	TF 128313	AWA	11.9
027042	Dove	SE 705855	YWA	51.8	030015	Crimble Brook	SK 925297	AWA	50.5
027043	Wharfe	SE 092494	YWA	477.0	030017	Witham	SK 979746	AWA	51.3
027044	Blackloss Beck	SE 725475	YWA	46.0					
027047	Shazendole Beck	SD 833883	YWA	70.2	031001	Eye Brook	SP 853941	CDWC	60.1
027048	Derwent	SE 990853	YWA	127.0	031002	Glen	TF 106749	AWA	341.9
027049	Rye	SE 696791	YWA	227.0	031004	Wetland	TF 095078	AWA	117.4
027050	Exk	NZ 865081	YWA	308.0	031005	Wetland	TF 970997	AWA	417.0
027051	Crimble	SE 284519	YWA	8.1	031006	Gwash	TF 038097	AWA	150.0
027052	Whitting	SK 376747	YWA	50.2	031007	Wetland	SP 948999	AWA	398.9
027053	Nidd	SE 230603	YWA	217.6	031008	East Glen	TF 068160	AWA	136.7
027054	Hodge Beck	SE 657902	YWA	37.1	031009	West Glen	TF 074113	AWA	173.0
027055	Rye	SE 560883	YWA	131.7	031010	Chater	SK 961030	AWA	68.9
027056	Pickering Beck	SE 791819	YWA	68.6	031011	West Glen	SK 987267	AWA	31.6
027057	Seven	SE 736821	YWA	121.6	031012	Tham	TF 016179	AWA	24.9
027058	Riccar	SE 661810	YWA	57.6	031013	East Glen	TF 038273	AWA	71.5
027059	Laver	SF 301710	YWA	87.5	031014	Grimsthorpe Brook	TF 046203	AWA	21.0
027060	Kyle	SE 509602	YWA	167.6	031015	Chater	SK 848037	AWA	18.5
027061	Cole	SE 136161	YWA	72.3	031016	North Brook	SK 957089	AWA	36.5
027062	Hudd	SE 482561	YWA	516.0	031017	Stanton Brook	SP 759318	AWA	42.7
027063	Dobb	SE 052639	YWA	25.2	031018	Langton Brook	SP 758908	AWA	55.1
027064	Went	SE 551163	YWA	83.7	031019	Mecbourne Brook	SK 798539	AWA	27.9
027065	Holme	SE 142157	YWA	87.4	031020	Moorcroft Brook	SK 939018	AWA	9.6
027066	Blackburn Brook	SK 939314	YWA	42.8	031021	Wetland	SP 819915	AWA	290.7
027067	Sheaf	SK 157863	YWA	49.1	031022	West Glen	SP 740867	AWA	20.8
027068	Ryburn	SE 035188	YWA	33.0	031023	Jordan	SK 965758	AWA	4.4
027069	Wissae	SE 375844	YWA	215.5	031024	Hatfield Brook	TF 026148	AWA	22.3
027071	Swale	SE 425734	YWA	363.0	031025	Gwash South Arm	SK 875051	AWA	24.5
027072	Wuth	SE 064408	YWA	7.7	031026	Eglington Brook	SK 878073	AWA	2.5
027073	Brompton Beck	SE 936784	YWA	12.9	031027	Bourne Eau	TF 107199	AWA	10.6
027074	Spen Beck	SE 225210	YWA	46.3	031028	Gwash	SK 951087	AWA	76.5
028001	Derwent	SK 198851	STWA	126.0	032001	Nene	TL 166977	AWA	1634.3
028002	Blire	SK 109792	STWA	163.0	032002	Wlow Brook	TL 067933	AWA	89.6
028003	Tame	SP 169915	STWA	408.0	032003	Harpe's Brook	SP 983799	AWA	74.3
028004	Tame	SP 206935	STWA	795.0	032004	Isa Brook	SP 898715	AWA	194.0
028005	Tame	SK 173105	STWA	1475.0	032005	Nene/Kingsbury	SP 727592	AWA	223.0
028006	Trent	SJ 994231	STWA	325.0	032007	Nene/Brampton	SP 747617	AWA	272.8
028007	Trent	SK 448799	STWA	4400.0	032008	Nene/Kingsbury	SP 627607	AWA	107.0
028008	Dove	SK 112397	STWA	399.0	032009	Wlow Brook	SP 981967	CDWC	67.7
028009	Trent	SK 620399	STWA	7486.0	032012	Woolton Brook	SP 736571	AWA	53.3
028010	Derwent	SK 356363	STWA	1054.0	032015	Wlow Bk Centre	SP 898892	AWA	7.1
028011	Derwent	SK 296586	STWA	690.0	032016	Wlow Brook Sth	SP 901886	AWA	7.6
028012	Trent	SK 131177	STWA	1229.0	032018	Isa	SP 861831	AWA	62.4
028014	Sow	SJ 975215	STWA	591.0	032019	Slade Brook	SP 873763	AWA	58.3
028015	Idle	SK 690895	STWA	529.0	032020	Wetling Brook	TL 089995	AWA	46.9
028016	Ryton	SK 641897	STWA	231.0	032023	Grendon Brook	SP 883633	AWA	47.5
028017	Devon	SK 787486	STWA	284.0	032024	Southwick Brook	TL 025921	AWA	20.5
028018	Dove	SK 235288	STWA	883.2	032025	Nene/Whiton	SP 670658	AWA	63.4
028019	Trent	SK 279204	STWA	3072.0	032026	Nene/Brampton	SP 738707	AWA	58.0
028020	Churnet	SK 103389	STWA	236.0	032027	Baling Brook	TL 177949	AWA	24.3
028021	Derwent	SK 443327	STWA	1175.0	032029	Hore	SP 660610	AWA	7.0
028022	Trent	SK 801601	STWA	8231.0	032030	Colon ME Stream	SP 669714	AWA	8.5
028023	Wye	SK 182696	STWA	154.0	032031	Woolton Brook	SP 726577	AWA	73.9
028024	Wreake	SK 615124	STWA	413.8					
028025	Sence	SP 321996	STWA	169.4	033001	Bedford Ouse	TL 369727	AWA	3030.0
028026	Anker	SK 263034	STWA	368.0	033002	Bedford Ouse	TL 055495	AWA	1460.0
028027	Erewash	SK 482364	STWA	180.7	033003	Cam	TL 050657	AWA	803.0
028028	Sour	SK 603109	STWA	480.0	033004	Lark	TL 648760	AWA	466.2
028029	Kingsdon Brook	SK 503277	STWA	57.0	033005	Bedford Ouse	SP 736353	AWA	388.5
028030	Back Brook	SK 466171	STWA	8.4	033006	Wissay	TL 771965	AWA	274.5
028031	Manifold	SK 140507	STWA	148.5	033007	Nar	TL 723179	AWA	153.3
028032	Meden	SK 558680	STWA	67.8	033008	Little Ouse	TL 860832	AWA	639.0
028033	Dove	SK 063668	STWA	8.0	033009	Bedford Ouse	SP 951565	AWA	1320.0
028034	Maun	SK 681728	STWA	161.0	033011	Little Ouse	TL 892801	AWA	128.7
028035	Leen	SK 549392	STWA	111.0	033012	Kyn	TL 155631	AWA	137.5
028036	Poulter	SK 700752	STWA	128.2	033013	Sapston	TL 896791	AWA	205.9
028038	Manifold	SK 106595	STWA	46.0	033014	Lark	TL 758730	AWA	272.0
028039	Risa	SP 071847	STWA	74.0	033015	Ouzel	SP 882408	AWA	277.1
028040	Trent	SJ 892467	STWA	53.2	033016	Cam	TL 450593	AWA	761.5
028041	Hamps	SK 082502	STWA	39.6	033018	Love	SP 774488	AWA	138.1
028042	Churnet	SJ 979520	STWA	136.0	033019	Ther	TL 880830	AWA	316.0
028043	Derwent	SK 261683	STWA	335.0	033020	Altonbury Brook	TL 208717	AWA	201.5
028044	Poulter	SK 563774	STWA	65.0	033021	Rhee	TL 415523	AWA	303.0
028045	Mercer	SK 681732	STWA	106.2	033022	Ival	TL 153509	AWA	541.3
028046	Dove	SK 146509	STWA	83.0	033023	Lea Brook	TL 667733	AWA	101.8
028047	Widnates Dyke	SK 615876	STWA	85.2	033024	Cam	TL 466506	AWA	194.0
028048	Amber	SK 376520	STWA	139.0	033025	Babngly	TF 696256	AWA	39.6
028049	Ryton	SK 575794	STWA	77.0	033026	Bedford Ouse	TL 216669	AWA	2570.0
028050	Lurne	SE 646012	STWA	141.0	033027	Rhee	TL 333485	AWA	19.1

Station number	River name	National Grid reference	Measuring authority	Area (sq km)	Station number	River name	National Grid reference	Measuring authority	Area (sq km)
033028	Fli	TL 143393	AWA	119.6	038011	Marham	TL 225169	TWA	98.7
033029	Strangside	TF 716006	AWA	93.5	038012	Sieveage Brook	TL 274211	TWA	36.0
033031	Broughton Brook	SP 889408	AWA	66.6	038013	Upper Lee	TL 118185	TWA	70.7
033032	Heacham	TF 685375	AWA	89.3	038014	Salmon Brook	TQ 343937	TWA	20.5
033033	Hw	TL 190379	AWA	108.0	038015	Intercepting dr	IQ 355932	TWA	7.4
033034	Little Ouse	TL 851844	AWA	699.3	038016	Stansstead Springs	TL 500246	TWA	
033035	Ely Ouse	TL 588010	AWA	3430.0	038017	Marham	TL 184212	TWA	39.1
033037	Bedford Ouse	SP 877443	AWA	800.0	038018	Upper Lee	TL 299099	TWA	150.0
033039	Bedford Ouse	TL 160535	AWA	1660.0	038019	Salmons Brook	IQ 354932	TWA	33.9
033040	Rhee	TL 267401	AWA	1.0	038020	Coburns Brook	TQ 387999	TWA	38.4
033044	Theit	TL 957855	AWA	277.8	038021	Turkey Brook	TQ 359985	TWA	42.2
033045	Wittle	TM 027878	AWA	28.3	038022	Pymmes Brook	TQ 340925	TWA	47.6
033046	Theit	TL 996923	AWA	145.3	038023	Lee flood relief	TQ 356880	TWA	1243.0
033049	Stanford Water	TL 834953	AWA	43.5	038024	Small River Lee	TQ 370988	TWA	41.5
033050	Snail	TL 631703	AWA	60.6	038025	Pymmes Brook	TQ 340925	TWA	41.4
033051	Cam	TL 505426	AWA	141.0	038026	Punery Brook	TL 495126	TWA	54.6
033052	Swaffham Lode	TL 553628	AWA	36.4	038028	Stansstead Brook	TL 506241	TWA	25.9
033054	Bahngley	TF 680252	AWA	47.7	038029	Chun	TL 392748	TWA	50.4
033055	Granta	TL 510504	AWA	98.7	038030	Beane	TL 325131	TWA	175.1
033056	Guy Water	TL 531627	AWA	76.4	038131	Rye Meads outfall			
033057	Ouzel	SP 917241	AWA	119.0					
033058	Ouzel	SP 883322	AWA	215.0	039001	Thames	TQ 177698	TWA	9948.0
033059	Cut off Channel	TL 729757	AWA		039002	Thames	SU 568935	TWA	3444.7
033060	Kings Dole	TL 708973	AWA		039003	Wandle	TQ 265705	GLC	176.1
033062	Gulden Brook	TL 403457	AWA		039004	Wandle	IQ 296655	GLC	122.0
033063	Little Ouse	TL 955807	AWA	101.0	039005	Beverly Brook	TQ 216717	GLC	43.6
033064	Whaddon Brook	TL 359466	AWA	16.0	039006	Windrush	SP 402019	TWA	362.6
033065	H-z	TL 185290	AWA	6.8	039007	Blackwater	SU 731648	TWA	354.8
033066	Granta	TL 570464	AWA	59.8	039008	Thames	SP 445087	TWA	1616.2
033067	New River	TL 608696	AWA	19.6	039009	Thames	SU 909797	TWA	6915.3
033068	Cheney Water	TL 296411	AWA	5.0	039010	Colne	IQ 052864	TWA	743.0
					039011	Wey	SU 874433	TWA	396.3
034001	Yare	IG 182087	AWA	231.8	039012	Hogsmill	TQ 182688	TWA	69.1
034002	Tas	TM 226994	AWA	146.5	039013	Colne	IQ 123982	TWA	352.2
034003	Bure	IG 192296	AWA	164.7	039014	Ven	TL 151016	TWA	137.0
034004	Wensum	IG 177128	AWA	536.1	039015	Whitewater	SU 731523	TWA	44.5
034005	Tud	IG 170113	AWA	73.2	039016	Kennet	SU 649708	TWA	1033.4
034006	Waveney	TM 229811	AWA	370.0	039017	Ray	SP 680211	IH	18.6
034007	Dove	TM 174772	AWA	133.9	039018	Ock	SU 486969	TWA	234.1
034008	Ani	TG 331270	AWA	49.3	039019	Lambourn	SU 470682	TWA	234.1
034010	Waveney	TM 168782	AWA	149.4	039020	Coln	SP 122062	TWA	106.7
034011	Wensum	TF 919294	AWA	127.1	039021	Cherwell	SP 482183	TWA	551.7
034012	Burn	IG 847428	AWA	80.0	039022	Loddon	SU 770657	TWA	164.5
034013	Waveney	TM 364917	AWA	670.0	039023	Wye	SU 896867	TWA	137.3
034014	Wensum	TG 020184	AWA	363.0	039024	Galwick Stream	TQ 288402	TWA	31.1
034018	Stiffkey	TF 944414	AWA	77.1	039025	Enbourne	SU 568648	TWA	147.6
034019	Bure	TG 267194	AWA	313.0	039026	Cherwell	SP 458411	TWA	199.4
					039027	Panig	SU 634766	TWA	170.9
035001	Gipping	TM 154441	AWA	310.8	039028	Dun	SU 371685	TWA	101.3
035002	Deben	TM 322534	AWA	163.1	039029	Tidborough	TQ 000478	TWA	59.0
035003	Aine	TM 300601	AWA	63.9	039030	Gane	TQ 087957	TWA	184.0
035004	Ore	TM 359583	AWA	54.9	039031	Lambourn	SU 411731	TWA	176.0
035008	Gipping	TM 058578	AWA	178.9	039032	Lambourn	SU 390745	TWA	154.0
035009	Gyph	TM 425765	AWA	96.4	039033	Winterbourne St	SU 453694	TWA	49.2
035010	Gipping	TM 127465	AWA	298.0	039034	Furnode	SP 448099	TWA	430.0
035011	Belstead Brook	TM 143420	AWA	40.4	039035	Churn	TQ 076963	TWA	124.3
035013	Gyph	TM 406769	AWA	97.9	039036	Low Brook	TQ 054668	TWA	16.0
					039037	Kennet	SU 187688	TWA	142.0
036001	Stour	TV 047240	FWC	844.3	039038	Thames	SP 670055	TWA	443.0
036002	Gem	TL 846472	AWA	87.3	039039	Thames	SU 094842	TWA	185.0
036007	Ros	TL 985378	AWA	53.9	039042	Leach	SU 227994	TWA	76.9
036004	Chad Brook	TL 868459	AWA	47.4	039043	Kennet	SU 295710	TWA	295.0
036005	Brett	TM 025429	AWA	156.0	039044	Hart	SU 755593	TWA	84.0
036006	Sirer	TM 020344	AWA	578.0	039046	Thames	SU 516946	TWA	3414.0
036007	Bekhampton Brook	TL 848421	AWA	58.6	039049	S.R. Stream	IQ 217895	GLC	29.0
036008	Sirer	TL 827463	AWA	274.5	039051	Sor Brook	SP 475346	TWA	106.4
036009	Brett	TL 914525	AWA	25.7	039052	The Cut	SU 853713	TWA	50.2
036010	Barnstead Brook	TL 889478	AWA	28.3	039053	Mole	TQ 271434	TWA	89.9
036011	Stour Brook	TL 696441	AWA	34.5	039054	Mole	IQ 260399	TWA	31.8
036012	Stour	TL 708450	AWA	76.2	039055	Yarwood Bk West	TQ 083846	GLC	175.7
036013	Brett	TM 032754	AWA	95.0	039056	Ravenbourne	TQ 372732	GLC	67.6
036015	Stour	TL 897358	AWA	480.7	039057	Cran	TQ 103778	GLC	616.5
036016	Ramsay	TM 206788	AWA	13.9	039058	Pool	TQ 371725	GLC	38.3
036017	Ely Ouse outfall	TL 681559	AWA		039059	Mole	IQ 179502	TWA	316.0
					039060	Mole	TQ 262462	TWA	142.0
037001	Roding	IQ 415884	TWA	303.3	039071	Thames	SL 007973	TWA	63.7
037002	Chermer	TL 794090	AWA	533.9	039072	Thames	SU 982773	TWA	7046.0
037003	Ter	TL 786107	AWA	77.8	039073	Chun	SP 020078	TWA	84.0
037004	Blackwater	TL 836092	AWA	337.0	039074	Ampony Brook	SU 105950	TWA	74.4
037005	Colne	TL 962761	AWA	238.2	039075	Marston Meysley Bk	SU 128964	TWA	25.0
037006	Can	TL 690072	AWA	228.4	039076	Windrush	SP 299107	TWA	296.0
037007	Wic	TL 686060	AWA	136.3	039077	Og	SU 194967	TWA	59.2
037008	Chelmer	TL 713071	AWA	190.3	039078	Wey(north)	SU 838462	TWA	118.4
037009	Brn	TL 818147	AWA	60.7	039081	Ock	SU 481966	TWA	234.0
037010	Blackwater	TL 845158	AWA	247.3	039085	Wandle	TQ 266703	GLC	176.1
037011	Chelmer	TL 629233	AWA	72.6	039086	Galwick Stream	TQ 285417	TWA	33.6
037012	Colne	TL 771364	AWA	65.1	039087	Ray	SU 121935	TWA	84.1
037013	Sandon Brook	TL 755055	AWA	60.6	039088	Chess	IQ 066947	TWA	105.0
037014	Roding	TL 567040	TWA	95.1	039089	Gace	TL 053077	TWA	48.2
037015	Crissey Brook	TL 548035	TWA	62.2	039091	Misbourne	SU 975963	TWA	170.0
037016	Pant	TL 668313	AWA	62.5	039097	Thames	SU 230981	TWA	
037017	Blackwater	TL 793243	AWA	139.7					
037018	Ingrebourne	TQ 553862	TWA	47.9	040001	Medway	TQ 407353	SWA	26.9
037019	Beam	TL 015853	TWA	49.7	040002	Darwell	TQ 722713	SWA	9.6
037020	Chelmer	TL 670193	AWA	132.1	040003	Medway	IQ 708530	SWA	1256.1
037021	Romney	TL 985205	AWA	52.6	040004	Rother	TQ 773245	SWA	206.0
037022	Holland Brook	TM 179212	AWA	54.9	040005	Brent	IQ 758478	SWA	277.1
037023	Roding	TQ 442955	TWA	269.0	040006	Bourne	TQ 632497	SWA	50.3
037024	Colne	TL 855298	AWA	154.2	040007	Medway	TQ 517405	SWA	255.1
037025	Bourne Brook	TL 822276	AWA	32.1	040008	Great Stour	IR 049470	SWA	230.0
037026	Terpenry Brook	TM 079207	AWA	29.0	040009	Tese	TQ 718399	SWA	136.2
037027	Sperny Brook	TM 054274	AWA	5.1	040010	Fden	TQ 520437	SWA	274.3
037028	Bentley Brook	TM 109193	AWA	12.1	040011	Great Stour	IR 116554	SWA	345.0
037029	St Osyth Brook	TM 134159	AWA	8.0	040012	Darent	TQ 551718	TWA	191.4
037030	Hollard Brook	TM 171277	AWA	48.6	040013	Darent	TQ 525584	TWA	100.5
037033	Lastwood Brook	IQ 859888	AWA	10.4	040014	Weyham	TR 276576	SWA	37.7
037034	Mardyke	TQ 596806	AWA	90.7	040015	White Drain	TR 055606	SWA	31.8
037036	Ely Ouse Outfall	TL 646351	AWA		040016	Cray	TR 511746	TWA	179.7
037037	Toppsfield Brook	TL 675377	AWA		040017	Oudwell	TQ 679240	SWA	27.5
037038	Wid	TL 672000	AWA	98.6	040018	Darent	TQ 530643	TWA	118.4
037039	Blackwater	TL 835090	AWA	337.0	040020	Fridge Stream	IQ 527367	SWA	53.7
					040021	Hexder Channel	TQ 813290	SWA	32.4
038001	Lee	TL 390092	TWA	1036.0	040022	Great Stour	TQ 973473	SWA	72.5
038002	Ash	TL 393148	TWA	78.7	040023	Fast Stour	IR 015407	AWA	58.8
038003	Marham	TL 282733	TWA	133.9	040024	Bartley M.J. St	TQ 633357	SWA	25.1
038004	Qib	TL 360774	TWA	136.5					
038005	Ash	TL 380738	TWA	85.2	041001	Nuningham Stream	IQ 662129	SWA	16.9
038006	Hib	TL 335758	TWA	148.1	041002	Ash Bourne	TQ 684141	SWA	18.4
038007	Canons Brook	TL 431704	TWA	21.4	041003	Cuckmere	TQ 533051	SWA	34.7



Station number	River name	National Grid reference	Measuring authority	Area (sq km)	Station number	River name	National Grid reference	Measuring authority	Area (sq km)
041004	Ouse	TQ 433148	SWA	395.7	050002	Torridge	SS 500185	SWWA	663.0
041005	Ouse	TQ 429214	SWA	180.9	050003	Taw	SX 634938	SWWA	15.6
041006	Uck	TQ 459190	SWA	87.8	050004	Hole Water	SS 705373	SWWA	5.4
041009	Rother	TQ 034178	SWA	345.8	051001	Dorford Stream	ST 088428	WWA	75.8
041010	Adur W Branch	TQ 178197	SWA	109.1	051002	Horner Water	SS 898458	WWA	20.8
041011	Rother	SU 852229	SWA	54.0	052001	Axe	ST 527458	WWA	18.2
041012	Adur F Branch	TQ 219190	SWA	93.3	052002	Yeo	ST 556116	WWA	30.3
041013	Hugglets Stream	TQ 671138	SWA	14.2	052003	Halse Water	ST 206253	WWA	87.8
041014	Arun	TQ 047229	SWA	379.0	052004	Isle	ST 361188	WWA	90.1
041015	Fms	SU 755074	SWA	58.3	052005	Tone	ST 206750	WWA	207.0
041016	Cuckmere	TQ 611150	SWA	18.7	052006	Yeo	ST 573162	WWA	213.1
041017	Cornbeaven	TQ 765102	SWA	30.5	052007	Parrett	ST 461144	WWA	74.8
041018	Kird	TQ 044256	SWA	66.8	052008	Tone	ST 044313	WWA	18.1
041019	Arun	TQ 117331	SWA	139.0	052009	Sheppey	ST 498439	WWA	59.6
041020	Bevern Stream	TQ 423161	SWA	34.6	052010	Brue	ST 590318	WWA	135.2
041021	Clayhall Stream	TQ 448153	SWA	7.1	052011	Cary	ST 498291	WWA	82.4
041022	Lud	SU 931223	SWA	52.0	052012	Tone	ST 078202	WWA	57.2
041023	Levant	SU 871064	SWA	87.2	052015	Land Yeo	ST 483716	WWA	23.3
041024	Shell Brook	TQ 335286	SWA	22.6	052016	Currypool Stream	ST 271382	WWA	15.7
041025	Luxwood Stream	TQ 060309	SWA	91.6	052017	Congresbury Yeo	ST 452631	WWA	66.6
041026	Cockhamse Brook	TQ 376262	SWA	36.1	052020	Gulka Stream	ST 571100	WWA	16.4
041027	Rother	SU 772270	SWA	37.2	053001	Avon	ST 903641	WWA	665.6
041028	Chess Stream	TQ 211173	SWA	24.0	053002	Semington Brook	ST 907605	WWA	157.7
041029	Bull	TQ 575131	SWA	40.8	053003	Avon	ST 753645	WWA	1595.0
042001	Wallington	SU 587075	SWA	111.0	053004	Chew	ST 648647	WWA	129.5
042002	Itchen	SU 467213	SWA	98.9	053005	Melord Brook	ST 763611	WWA	147.4
042003	Lymington	SU 318019	SWA	98.9	053006	Frome(Bristol)	ST 637772	WWA	148.9
042004	Test	SU 354188	SWA	1040.0	053007	Frome(Somerset)	ST 805564	WWA	261.6
042005	Walton Brook	SU 311330	SWA	53.6	053008	Avon	ST 966832	WWA	303.0
042006	Meon	SU 589141	SWA	72.8	053009	Wolow Brook	ST 741581	WWA	72.6
042007	Alre	SU 574326	SWA	57.0	053013	Marden	ST 955729	WWA	99.2
042008	Charlton Stream	SU 574323	SWA	75.1	053014	Spring Flow	ST 655464	WWA	
042009	Cardover Brook	SU 568373	SWA	71.7	053015	Spring Flow	ST 902524	WWA	
042010	Itchen	SU 467213	SWA	360.0	053016	Spring Flow	ST 803399	WWA	
042011	Hambro	SU 523149	SWA	56.6	053017	Boyd	ST 681698	WWA	48.0
042012	Antion	SU 379393	SWA	185.0	053018	Avon	ST 786671	WWA	1552.0
042013	Test	SU 355189	SWA	1040.0	053019	Woodbridge Brook	ST 949866	WWA	46.6
042014	Blackwater	SU 378174	SWA	104.7	053020	Gauze Brook	ST 937840	WWA	28.2
042016	Itchen	SU 512325	SWA	236.8	053022	Avon	ST 738651	WWA	1605.0
042019	Tanners Brook	SU 388133	SWA	16.0	053023	Sherston Avon	ST 891870	WWA	89.7
042021	Branch of Test	SU 355159	SWA	1050.0	053024	Tisbury Avon	ST 914893	WWA	73.6
043001	Avon	SU 142054	WWA	1649.8	053025	Mells	ST 757491	WWA	119.0
043003	Avon	SU 158144	WWA	1477.8	053026	Frome(Bristol)	ST 667822	WWA	78.5
043004	Bourne	SU 157304	WWA	163.6	053028	Ry Brook	ST 815688	WWA	107.0
043005	Avon	SU 151413	WWA	323.7	054001	Severn	SO 782762	STWA	4325.0
043006	Nadder	SU 098308	WWA	220.6	054002	Avon	SP 040438	STWA	2210.0
043007	Stour	SZ 113958	WWA	1073.0	054003	Vyrnwy	SP 019191	STWA	94.3
043008	Wye	SU 086343	WWA	445.4	054004	Sowe	SP 332731	STWA	262.0
043009	Stour	ST 870147	WWA	573.1	054005	Severn	SJ 412144	STWA	2025.0
043010	Allen	SU 006085	WWA	94.0	054006	Stour	SO 829768	STWA	374.0
043011	Ebble	SU 162763	WWA	109.0	054007	Arrow	SP 086536	STWA	319.0
043012	Wylfe	ST 909428	WWA	112.4	054008	Tame	SO 597686	STWA	1134.4
043013	Mude	SZ 184936	WWA	12.4	054009	Stour	SP 208507	STWA	316.0
043014	East Avon	SU 335559	WWA	86.2	054010	Sa warpe	SO 868618	STWA	184.0
043015	Wylfe	ST 868413	WWA	69.0	054011	Ter	SJ 592123	STWA	852.0
043017	West Avon	SU 335559	WWA	76.0	054012	Chwyedog	SN 944855	STWA	57.0
043018	Allen	SU 008007	WWA	176.5	054013	Severn	SO 164958	STWA	580.0
043019	Shrew Water	ST 807278	WWA	29.1	054015	Bow Brook	SO 927463	STWA	156.0
043021	Avon	SZ 155943	WWA	1706.0	054016	Roden	SJ 589141	STWA	259.0
044001	Frome	SY 866867	WWA	414.4	054017	Leadon	SO 777234	STWA	293.0
044002	Piddle	SY 913876	WWA	183.1	054018	Rea Brook	SJ 466097	STWA	178.0
044003	Asker	SY 470928	WWA	49.1	054019	Avon	SP 333715	STWA	347.0
044004	Frome	SY 708903	WWA	206.0	054020	Perry	SJ 434192	STWA	180.8
044006	Syding Water	SY 632997	WWA	17.4	054022	Severn	SN 853872	STWA	8.7
044008	Sih Winterbourne	SY 629897	WWA	19.9	054023	Badsey Brook	SP 063449	STWA	95.8
044009	Wey	SY 606839	WWA	7.0	054024	Worfe	SO 747953	STWA	258.0
045001	Exe	SS 936016	SWWA	600.9	054025	Dulas	SN 950824	STWA	52.7
045002	Exe	SS 943178	SWWA	421.7	054026	Chelt	SO 892764	STWA	34.5
045003	Culm	ST 021058	SWWA	226.1	054027	Frome	SO 831047	STWA	198.0
045004	Axe	SY 762953	SWWA	288.5	054028	Vyrnwy	SJ 252195	STWA	778.0
045005	Otter	SY 087885	SWWA	202.5	054029	Tame	SJ 735557	STWA	1480.0
045006	Quarwe	SS 919356	SWWA	70.4	054032	Severn	SO 863390	STWA	6850.0
045008	Otter	SY 115986	SWWA	104.2	054034	Dowries Brook	SO 768764	STWA	40.8
045009	Exe	SS 935260	SWWA	153.7	054036	Isbourne	SP 023408	STWA	90.7
046001	South Teyn	SX 671844	SWWA	9.9	054038	Tanar	SP 752725	STWA	229.0
046002	Texn	SX 856746	SWWA	380.0	054040	Mense	SJ 680205	STWA	167.8
046003	Dart	SX 751659	SWWA	247.6	054041	Ten	SJ 649230	STWA	192.0
046004	Avon	SX 480651	SWWA	17.0	054042	Chwyedog	SN 914867	STWA	49.0
046005	East Dart	SX 651775	SWWA	21.5	054043	Severn	SO 863399	STWA	6990.0
046006	Erne	SX 647537	SWWA	43.5	054044	Tam	SJ 629316	STWA	92.6
046007	West Dart	SX 643742	SWWA	47.9	054045	Perry	SJ 347303	STWA	49.1
046008	Avon	SX 719476	SWWA	102.3	054046	Worfe	SJ 781046	STWA	54.9
047001	Tamar	SX 426725	SWWA	916.9	054047	Perry	SJ 403223	STWA	155.0
047002	Tamar	SX 347886	SWWA	237.1	054048	Deze	SP 273556	STWA	102.0
047003	Tavy	SX 474650	SWWA	205.9	054049	Leam	SP 307654	STWA	362.0
047004	Lynher	SX 368624	SWWA	135.5	054051	Chwyedog	SN 914867	STWA	49.0
047005	Ottery	SX 336866	SWWA	120.7	054052	Corve	SO 510757	STWA	164.0
047006	Lydf	SX 388842	SWWA	218.1	054053	Onry	SO 455789	STWA	235.0
047007	Yealm	SX 574511	SWWA	54.9	054055	Rea	SO 664774	STWA	129.0
047008	Thushel	SX 398856	SWWA	112.7	054056	Clun	SO 393786	STWA	195.0
047009	Tiddy	SX 343505	SWWA	37.2	054057	Severn	SO 844279	STWA	9895.0
047010	Tamar	SX 290891	SWWA	76.7	054058	Stoke Park Brook	SJ 644260	STWA	14.3
047011	Plym	SX 522613	SWWA	79.2	054059	Allford Brook	SJ 654223	STWA	10.7
047013	Withey Brook	SX 744763	SWWA	16.2	054060	Polford Brook	SJ 634220	STWA	25.0
047014	Waknam	SX 513699	SWWA	43.2	054061	Hodnet Brook	SJ 628288	STWA	5.1
048001	Fowey	SX 227698	SWWA	36.8	054065	Roden	SJ 565241	STWA	210.0
048002	Fowey	SX 08813	SWWA	171.2	054067	Smestow Brook	SO 861906	STWA	81.3
048003	Fal	SW 921447	SWWA	87.0	054068	Titchell Brook	SJ 379288	STWA	21.2
048004	Warteggan	SX 159674	SWWA	25.3	054069	Springs Brook	SJ 387297	STWA	10.4
048005	Konwyrr	SW 820450	SWWA	19.1	054080	Severn	SN 968851	STWA	187.0
048006	Cober	SW 654273	SWWA	40.1	054081	Chwyedog	SN 913868	STWA	49.0
048007	Kennal	SW 762377	SWWA	26.6	054083	Crow Brook	SJ 678141	STWA	16.7
048009	St Noot	SX 184662	SWWA	22.7	054084	Cannop Brook	SO 616075	STWA	31.5
048010	Seaton	SX 295956	SWWA	38.1	054085	Cannop Brook	SO 609115	STWA	10.4
048011	Fowey	SX 098624	SWWA	169.1	054086	Cownwy Overston	SH 999179	STWA	13.2
049001	Camel	SX 017682	SWWA	208.8	054087	Allford Brook	SJ 665233	STWA	4.7
049002	Hayle	SW 549342	SWWA	48.9	054088	Little Avon	ST 683988	WWA	134.0
049003	De Lank	SX 132765	SWWA	21.7	054090	Landwyth	SN 844876	IH	0.9
049004	Garnel	SW 829593	SWWA	41.0	054091	Saverrn	SN 843878	IH	3.6
050001	Taw	SS 608237	SWWA	876.2	054092	Hore	SN 846873	IH	3.2
					054111	Severn	SO 776783	STWA	4325.0
					055001	Wye	SO 535090	WELS	4040.0
					055002	Wye	SO 485388	WELS	1895.9
					055003	Lugg	SO 548405	WELS	885.8

Station number	River name	National Grid reference	Measuring authority	Area (sq km)	Station number	River name	National Grid reference	Measuring authority	Area (sq km)
055004	Irfon	SN 892460	WELS	72.8	066003	Aled	SH 957703	WELS	70.0
055005	Wye	SN 969876	WELS	168.8	066004	Wheeler	SJ 105714	WELS	62.9
055006	Elan	SN 926645	STWA	184.0	066005	Chwyd	SJ 122592	WELS	95.3
055007	Wye	SO 076445	WELS	1282.1	066006	Ehwy	SH 957718	WELS	194.0
055008	Wye	SN 829838	04	10.4	066008	Aled	SH 915598	WELS	11.8
055009	Monnow	SO 419251	WELS	357.4	066011	Corrwy	SH 807581	WELS	344.5
055010	Wye	SN 843825	WELS	27.2	067001	Dee	SH 947357	WELS	261.6
055011	Irfon	SO 105683	WELS	111.4	067002	Dee	SJ 357413	WELS	1040.0
055012	Irfon	SN 995507	WELS	244.2	067003	Brenig	SH 974539	WELS	22.0
055013	Arrow	SO 328585	WELS	126.4	067004	Ahwen	SH 957528	WELS	25.5
055014	Lugg	SO 364647	WELS	203.3	067005	Cernog	SJ 295373	WELS	113.7
055015	Honddu	SO 277294	WELS	25.1	067006	Ahwen	SJ 042436	WELS	184.7
055016	Irfon	SO 024578	WELS	358.0	067007	Dee	SJ 155428	WELS	728.0
055017	Chwefru	SN 998531	WELS	29.0	067008	Alyn	SJ 336541	WELS	227.1
055018	Frome	SO 615428	WELS	144.0	067009	Alyn	SJ 206667	WELS	77.8
055019	Gamber Brook	SO 529235	WELS	30.3	067010	Gelynn	SH 843420	WELS	13.1
055020	Pansley Brook	SO 462598	WELS	24.2	067012	Tryweryn	SH 838398	WELS	27.2
055021	Lugg	SO 502589	WELS	371.0	067013	Hennant	SH 946349	WELS	33.9
055022	Trothy	SO 503112	WELS	142.0	067015	Dee	SJ 348415	WELS	1019.3
055023	Wye	SO 528110	WELS	4010.0	067016	Wortherbury Brook	SJ 418464	WELS	142.1
055025	Llynfi	SO 166373	WELS	132.0	067017	Tryweryn	SH 880399	WELS	59.9
055026	Wye	SN 916676	WELS	174.0	067018	Dee	SH 874308	WELS	53.9
055027	Rudhall Brook	SO 641257	WELS	13.2	067025	Chwydog	SJ 396483	WELS	98.6
055028	Frome	SO 667489	WELS	77.7	067028	Cedog	SJ 034371	WELS	36.5
055029	Monnow	SO 415749	WELS	354.0	067079	Trysion	SJ 066405	WELS	12.3
055030	Clawen	SN 910620	WELS	95.3	068001	Weaver	SJ 670633	NWWA	622.0
055031	Yazor Brook	SN 492415	WELS	42.3	068002	Gowry	SJ 443714	NWWA	156.2
055032	Elan	SN 934653	WELS	184.0	068003	Dane	SJ 668718	NWWA	407.1
055033	Wye	SN 874853	IH	3.9	068004	Wastall Brook	SJ 674552	NWWA	92.7
055034	Cyfl	SN 824842	IH	3.1	068005	Weaver	SJ 653431	NWWA	207.0
055035	Iago	SN 876854	IH	1.1	068006	Dane	SJ 654544	NWWA	150.0
056001	Usk	SO 345056	WELS	911.7	068007	Wincham Brook	SJ 927577	NWWA	148.0
056002	Edw	SO 259889	WELS	216.5	068010	Fender	SJ 281880	NWWA	18.4
056003	Honddu	SO 051297	WELS	62.1	068011	Arley Brook	SJ 696799	NWWA	36.5
056004	Usk	SO 127203	WELS	543.9	068015	Gowry	SJ 497624	NWWA	49.0
056005	Lwyd	ST 330924	WELS	98.1	068018	Dane	SJ 861632	NWWA	145.0
056006	Usk	SN 947295	WELS	183.8	068019	Weaver	SJ 574762	NWWA	1370.0
056007	Senni	SN 978255	WELS	19.9	068020	Gowry	SJ 448711	NWWA	156.0
056008	Monks Ditch	ST 372885	WELS	15.4	069001	Mersy	SJ 728936	NWWA	679.0
056010	Usk	SO 358042	WELS	927.2	069002	Inwell	SJ 824987	NWWA	559.4
056011	Sirhowy	ST 206912	WELS	76.1	069003	kk	SJ 841932	NWWA	72.5
056012	Grwyne	SO 241176	WELS	82.2	069004	Etherow	SK 023971	NWWA	78.2
056013	Ysce	SO 003304	WELS	62.8	069005	Glaze Brook	SJ 685939	NWWA	152.0
056014	Usk	SN 840290	WELS	17.0	069006	Bofin	SJ 721875	NWWA	256.0
056015	Ohway Brook	SO 384010	WELS	105.1	069007	Mersy	SJ 779336	NWWA	660.0
056016	Captanell out'l	SO 104206	WELS	37.4	069008	Dean	SJ 846830	NWWA	51.8
056017	Afon Lwyd	SK 274019	WELS	42.5	069011	Mucker Brook	SJ 855889	NWWA	67.3
056018	Sirhowy	SO 131114	WELS	13.5	069013	Sunderland Brook	SJ 726905	NWWA	44.8
057001	Taf Fechan	SO 060117	WELS	33.7	069015	Etherow	SJ 962908	NWWA	156.0
057002	Taf Fawr	SO 012111	WELS	43.0	069017	Goyl	SJ 964898	NWWA	183.0
057003	Taf	ST 132818	WELS	486.9	069018	Newton Brook	SJ 585933	NWWA	32.8
057004	Cynon	ST 079956	WELS	106.0	069020	Medlock	SJ 849975	NWWA	57.5
057005	Taf	ST 079897	WELS	454.8	069021	Stake Brook	SO 876247	NWWA	0.3
057006	Rhondda	ST 054909	WELS	100.5	069023	Roch	SO 807077	NWWA	186.0
057007	Taf	ST 089951	WELS	194.5	069024	Croa	SO 743068	NWWA	145.0
057008	Rhymney	ST 225821	WELS	178.7	069027	Tame	SJ 906918	NWWA	150.0
057009	Fly	ST 127770	WELS	145.0	069030	Sankey Brook	SJ 588522	NWWA	154.0
057010	Eiv	ST 034827	WELS	39.4	069031	Dixon Brook	SJ 457865	NWWA	47.9
057011	Blaew Taf Fawr	SN 987193	WELS	5.1	069032	Allt	SJ 392983	NWWA	90.1
057012	Garwnant	SO 004129	WELS	43.1	069033	Allt	SO 359012	NWWA	100.0
057014	Rhymney	ST 156984	WELS	63.2	069034	Musbury Brook	SO 775213	NWWA	3.1
057015	Taf	SO 043068	WELS	104.1	069035	Inwell	SO 797709	NWWA	155.0
057016	Taf Fechan	SK 060115	WELS	33.8	069036	Eagley Brook	SO 701749	NWWA	16.8
058001	Ogmore	SS 904794	WELS	158.0	069039	Medlock	SJ 863987	NWWA	55.9
058002	Neath	SK 815017	WELS	190.9	069040	Inwell	SO 793788	NWWA	105.0
058003	Ewenny	SS 914780	WELS	62.9	070001	Douglas	SO 631719	NWWA	39.4
058005	Ogmore	SS 904844	WELS	74.3	070002	Douglas	SO 476126	NWWA	198.0
058006	Mette	SN 915082	WELS	65.8	070003	Douglas	SO 587061	NWWA	55.3
058007	Llynfi	SS 891855	WELS	50.2	070004	Yarrow	SO 498780	NWWA	74.4
058008	Dulas	SN 778008	WELS	43.0	070005	Lostock	SO 497797	NWWA	56.0
058009	Ewenny	SS 920782	WELS	62.5	071001	Ribble	SO 589304	NWWA	1145.0
058010	Hepste	SN 969134	WELS	11.0	071002	Hodder	SO 719546	NWWA	37.0
058011	Thaw	ST 017716	WELS	49.2	071003	Croasdale	SO 706546	NWWA	10.4
059001	Tawe	SS 685998	WELS	227.7	071004	Calder	SO 729360	NWWA	316.0
059002	Loughor	SN 623127	WELS	46.4	071005	Bottoms Beck	SO 745565	NWWA	10.6
060001	Twym	SN 491204	WELS	1087.8	071006	Ribble	SO 722392	NWWA	456.0
060002	Coitu	SN 508225	WELS	297.8	071007	Ribble	SO 709379	NWWA	720.0
060003	Taf	SN 238160	WELS	217.3	071008	Hodder	SO 704399	NWWA	261.0
060004	Dewi Fawr	SN 290175	WELS	40.1	071010	Pendle Water	SO 837351	NWWA	108.0
060005	Brân	SN 771343	WELS	66.8	071011	Ribble	SO 839556	NWWA	204.0
060006	Gwili	SN 431220	WELS	129.5	071013	Darwen	SO 677262	NWWA	39.5
060007	Twym	SN 762362	WELS	231.8	071014	Darwen	SO 565278	NWWA	128.0
060008	Twym	SN 786472	WELS	89.8	072001	Lune	SO 503647	NWWA	994.6
060009	Sawdelle	SN 712266	WELS	8.1	072002	Wyre	SO 463411	NWWA	275.0
060010	Twym	SN 485206	WELS	1090.4	072004	Lune	SO 529653	NWWA	983.0
060012	Twrch	SN 650440	WELS	20.7	072005	Lune	SO 627907	NWWA	279.0
060013	Coitu	SN 537301	WELS	261.6	072006	Lune	SO 615778	NWWA	507.1
061001	Western Cleddau	SM 954177	WELS	197.6	072008	Wyre	SO 488447	NWWA	174.0
061002	Eastern Cleddau	SN 072153	WELS	183.1	072009	Wenning	SO 615701	NWWA	142.0
061003	Gwaun	SN 005349	WELS	31.3	072010	Lune	NY 613041	NWWA	135.8
061004	Western Cleddau	SM 942184	WELS	197.6	072011	Rawthey	SO 639911	NWWA	200.0
062001	Telfi	SN 244416	WELS	893.6	073001	Levern	SO 371863	NWWA	241.0
062002	Telfi	SN 433406	WELS	546.5	073002	Crake	SO 294882	NWWA	73.0
063001	Ysawyth	SN 591774	WELS	169.6	073003	KENT	SO 507956	NWWA	73.6
063002	Rhndol	SN 601804	WELS	182.1	073005	Kent	SO 519874	NWWA	209.0
063003	Wyre	SN 542698	WELS	40.6	073007	Troubeck	NY 404007	NWWA	23.6
064001	Dovey	SH 745019	WELS	471.3	073008	Bela	SO 496806	NWWA	131.0
064002	Dysynni	SH 632066	WELS	75.1	073009	Spryn	SO 514961	NWWA	34.6
064003	Mawddach	SH 729233	WELS	138.6	073010	Levern	SO 367863	NWWA	247.0
064006	Leri	SN 635882	WELS	47.2	073011	Mint	SO 524944	NWWA	65.8
065001	Gashyn	SH 592478	WELS	68.6	073013	Hothay	NY 371042	NWWA	64.0
065002	Dwyrhyd	SH 670415	WELS	78.2	073014	Brathay	NY 360034	NWWA	57.4
065004	Gwyrfa	SH 484599	WELS	47.9	073015	Keer	SO 523719	NWWA	48.0
065005	Eich	SH 400404	WELS	18.1	074001	Duddon	SD 196896	NWWA	78.2
065006	Senni	SH 493623	WELS	74.4	074002	Irt	NY 136038	NWWA	44.2
065007	Dwyrfa	SH 499429	WELS	57.4	074003	Ehann	NY 084154	NWWA	44.2
066001	Chwyd	SJ 069709	WELS	404.0	074005	Ehann	NY 090961	NWWA	125.5
066002	Ewry	SJ 021704	WELS	220.0	074006	Cader	NY 035045	NWWA	44.8
					074007	Esk	SD 131978	NWWA	70.2
					074008	Duddon	SD 209947	NWWA	47.9

Station number	River name	National Grid reference	Measuring authority	Area (sq km)	Station number	River name	National Grid reference	Measuring authority	Area (sq km)
075001	St Johns Beck	NY 309791	NWWA	40.9	084012	White Cart Water	NS 499629	CRPB	234.9
075002	Derwent	NY 038305	NWWA	663.0	084013	Clyde	NS 672616	CRPB	1903.1
075003	Derwent	NY 199321	NWWA	363.0	084014	Avon Water	NS 755518	CRPB	285.5
075004	Cocker	NY 131281	NWWA	116.6	084015	Kelvin	NS 638739	CRPB	235.4
075005	Derwent	NY 251239	NWWA	235.0	084016	Luggie Water	NS 739725	CRPB	33.9
075006	Newlands Beck	NY 240239	NWWA	33.9	084017	Black Cart Water	NS 411620	CRPB	103.1
075007	Glenderatrickin	NY 323248	NWWA	69.0	084018	Clyde	NS 891404	CRPB	932.6
075009	Greta	NY 286242	NWWA	145.6	084019	North Calder Wtr	NS 681625	CRPB	29.8
075010	Marion	NY 074738	NWWA	27.7	084020	Glaerent Water	NS 656763	CRPB	51.9
075011	Cocker	NY 149214	NWWA	64.0	084021	White Cart Water	NS 587597	CRPB	91.6
075017	Ellen	NY 096384	NWWA	96.0	084022	Durston	NS 929259	CRPB	110.3
076001	Haweswater Beck	NY 508159	NWWA	33.0	084023	Buthin Burn	NS 680717	CRPB	35.7
076002	Eden	NY 470567	NWWA	1366.7	084024	North Calder Wtr	NS 828678	CRPB	19.9
076003	Edmont	NY 578306	NWWA	396.2	084025	Luggie Water	NS 666734	CRPB	87.7
076004	Lowther	NY 577787	NWWA	158.5	084026	Allander Water	NS 558738	CRPB	32.8
076005	Eder	NY 605283	NWWA	616.4	084027	North Calder Wtr	NS 765624	CRPB	60.6
076007	Eder	NY 390571	NWWA	2286.5	084028	Monk and Canal	NS 765626	CRPB	60.6
076008	Irthing	NY 486581	NWWA	334.6	084029	Canter Water	NS 765471	CRPB	74.5
076009	Calcew	NY 378489	NWWA	147.2	084030	White Cart Water	NS 587598	CRPB	111.8
076010	Potter I	NY 412545	NWWA	160.0	085001	Lavan	NS 394803	CRPB	784.3
076011	Coal Burn	NY 693777	IR	1.5	085002	Endrick Water	NS 485866	CRPB	219.9
076014	Eden	NY 773097	NWWA	69.4	085003	Fallinch	NS 321197	CRPB	80.3
076015	Edmont	NY 472749	NWWA	145.0	085004	Lush Water	NS 356929	CRPB	35.3
077001	Eska	NY 390718	NWWA	841.7	086001	Little Easing	NS 143821	CRPB	30.8
077002	Eska	NY 397751	SRPB	145.0	086002	Eucharg	NS 140843	CRPB	139.9
077003	Liddel Water	NY 415759	SRPB	319.0	090001	Lavan	NN 202602	BAC	170.7
077004	Kirkle Water	NY 285693	SRPB	77.0	090002	Cretan	NN 019468	CRPB	66.1
077005	Lythe	NY 412662	NWWA	191.0	090003	Nons	NN 116742	HRPB	76.8
078001	Annan	NY 125755	SRPB	730.3	091001	Lochy	NN 126752	BAC	179.6
078002	Ae	NY 068852	SRPB	143.2	091002	Lochy	NN 145805	HRPB	1252.0
078003	Annan	NY 191704	SRPB	925.0	091003	Muckin' Cut	NS 179843	HRPB	383.3
078004	Kirkel Water	NY 017868	SRPB	76.1	093001	Carron	NG 942429	HRPB	137.8
078005	Kirkel Water	NY 091845	SRPB	279.0	094001	Lwa	NG 859803	HRPB	441.1
079001	Afton Water	NS 631050	SRPB	8.5	095001	Inver	NC 147250	HRPB	131.5
079002	Nith	NX 923851	SRPB	799.0	096001	Haldaie	NC 891561	HRPB	204.6
079003	Nith	NS 684129	SRPB	155.0	096002	Naver	NC 713568	HRPB	477.0
079004	Scar Water	NX 845940	SRPB	142.0	097001	Calder Burn	ND 085596	HRPB	24.5
079005	Cluden Water	NX 928795	SRPB	238.0	097002	Thurso	ND 131595	HRPB	412.8
079006	Nith	NX 858994	SRPB	471.0	101001	Eastern Yar	SZ 577857	SWA	57.5
080001	Urr	NX 822610	SRPB	199.0	101002	Medna	SZ 503874	SWA	79.8
080002	Dee	NX 733641	SRPB	809.0	201002	Fary Water	IH 406758	DOEN	161.2
081001	Penwhin Burn	NX 128694	DGRW	18.2	201005	Camowen	IH 460730	DOEN	274.6
081002	Cree	NX 412653	SRPB	368.0	201006	Drumagh	IH 458722	DOEN	324.6
081003	Luce	NX 180599	SRPB	171.0	201007	Burn Deniel	IC 372047	DOEN	145.3
081004	Bladnoch	NX 382545	SRPB	334.0	201008	Darg	IH 265842	DOEN	337.3
082001	Girvan	NX 217997	CRPB	245.5	203010	Blackwater	IH 820518	DOEN	951.4
082002	Doon	NS 338160	CRPB	323.8	203011	Main	IH 052086	DOEN	228.8
082003	Sinclair	NX 108832	CRPB	341.0	203012	Balferry	IH 926799	DOEN	419.5
083001	Caaf Water	NS 245514	SRPW	6.0	203017	Upper Burn	IH 043509	DOEN	335.6
083002	Garnock	NS 293488	CRPB	88.8	203018	Six Mile Water	IH 146667	DOEN	277.3
083003	Ayr	NS 525259	CRPB	166.3	203020	Moyola	IH 955905	DOEN	306.5
083004	Lugger	NS 508217	CRPB	181.0	203021	Kells Water	IH 106971	DOEN	127.0
083005	Irvine	NS 345369	CRPB	380.7	203025	Callan	IH 893574	DOEN	164.1
083006	Ayr	NS 361216	CRPB	574.0	203027	Brad	IO 097014	DOEN	177.2
083007	Lugton Water	NS 315420	CRPB	54.6	203028	Agwey	IC 883193	DOEN	98.9
083008	Garnock	NS 301424	CRPB	183.8	203033	Upper Burn	IJ 233341	DOEN	100.9
083010	Irvine	NS 532372	CRPB	72.8	204001	Bush	IC 942362	DOEN	306.1
084001	Kelvin	NS 558705	CRPB	335.1	205003	Lagan	IJ 249679	DOEN	444.7
084002	Calder	NS 309638	SRPW	12.4	205004	Lagan	IJ 329693	DOEN	490.4
084003	Clyde	NS 835452	CRPB	1092.9	205005	Ravenet	IJ 267613	DOEN	69.5
084004	Clyde	NS 927474	CRPB	741.8	205008	Lagan	IJ 236525	DOEN	85.2
084005	Clyde	NS 704579	CRPB	1704.2					
084006	Kelvin	NS 672749	CRPB	63.7					
084007	South Calder Wtr	NS 751585	CRPB	93.0					
084008	North Calder Wtr	NS 679604	CRPB	51.3					
084009	Neithan	NS 809429	CRPB	66.0					
084011	Clyde	NS 415664	CRPB	71.0					

\* - closed

Refer to page 178 for key to measuring authorities

## Gauged daily flows, monthly peaks and monthly rainfall

KEY:

Complete daily and complete peaks  
Complete daily and partial peaks  
Complete daily and no peaks  
Partial daily and complete peaks  
Partial daily and partial peaks  
Partial daily and no peaks  
No flow data

Complete  
rainfall  
A  
B  
C  
D  
E  
F  
1

Incomplete or  
missing rainfall  
a  
b  
c  
d  
e  
f  
-

Summary is presented  
in decade blocks

Stn. number	Gauged daily flows, monthly peaks and rainfall	Stn. number	Gauged daily flows, monthly peaks and rainfall	Stn. number	Gauged daily flows, monthly peaks and rainfall
002001	70s -----aaaa 80s aAAAAa	015001	50s -----aa 60s aAAAAAAEF 70s 1111111111 80s 111111	020005	50s -1111111111 70s AAAAA 80s -----AAAA 90s AAAAA
003001	50s ----gAAAA 60s aAAAAa 70s -----aaaa 80s aAAAAa	015002	50s -----a 60s AAAAAAAEF 70s 1111111111 80s 11111	020006	70s -----AAAA 80s AAAAA
003002	70s -----gAA 80s aAAAAa 90s AAAAAa	015003	40s -----1cC 50s CBAAAAAA 60s AAAAAAA 70s AAAAAAA	020007	50s -----11 70s 111111AAAA
003003	70s -----F 80s AAAAAa			020008	80s AAAAA
003004	70s -----F 80s AAAAAa				
003005	80s -----aa				
004001	40s -----1c 50s oocBAEAAEA 60s BABABAAAA 70s E11111AAAA 80s AAAAAa	015004	20s -----CCC 30s CCCCCCBAe- 40s -----1111 50s E111111111 60s AAAAAAAEF 70s 1111111111	021001	50s -----e 60s AAAALEAAE1 70s 1111111111 80s AAAAA
004003	70s -----aaaa 80s aAAAAa	015005	20s -----CCC 30s CCCCCCBAe- 40s -----111 50s LE1EE1111 60s AAAAAAAEF 70s 1111111111	021002	50s -----11-e 60s aBCBAAAEF 70s 1111111111
004004	80s -----aa			021003	50s -----e 60s AAAAAAAABAA 70s AAAAAAA 80s ABBC1
005001	50s ----gAAAAA 60s AAE-111111 70s 1111	015006	50s ----gAAAAA 60s AAAAAAA 70s AAAAAAA 80s AAAAAA	021004	60s ----gAAe- 70s -----111 80s AAAAAAA 90s AAAAAAA
006001	30s ----gAAAB 40s BBAABBBAA 50s E11FAAAAAA 60s AAE111111 70s 1111	015007	50s ----gAA 60s AAAAAAA 70s AAAAAAA 80s AAAAAA	021005	60s -----AAAAA 70s AAAAAAA 80s AABCC
006003	20s -----f 30s cccccccccc 40s ccccc1	015008	50s -----FA 60s AAAAAAA 70s AAAAAAA 80s AAAAAA	021006	60s -----AAAAA 70s AAAAAAA 80s AAAAA
006006	50s ----gAAAAAR 60s RAA 70s -----AAAAA 80s AAAAAa	015009	70s -----cAAAAA 80s AAAAAA 90s AAAAAA	021007	60s -----AAAAA 70s AAAAAAA 80s AABCC
006007	70s -----AAAAA 80s AAAAAa	015010	70s -----cAAAAA 80s AAAAAA 90s AAAAAA	021008	60s -----AAAAA 70s AAAAAAA 80s AABCC
006008	70s -----F 80s AAAAAa	015011	50s -----cC 60s cccccccccc 70s cCBAAAAAA 80s AABCC	021009	60s -----AAAAA 70s AAAAAAA 80s AAAAA
007001	60s AAAAAAA 70s AAAAAAA 80s AAAAAA	015012	70s -----BAAAa 80s AAAAAA 90s AAAAAA	021010	60s R-FAAAAAA 70s AAAAAABAA 80s A1111
007002	50s ----gAA 60s AAAAAAA 70s AAAAAA 80s AAAAAA	015013	50s -----cccc 60s cCCCCCCCCC 70s CCBAAAAAA 80s AABCC	021011	60s -----FAAAAAA 70s AAAAAAA 80s AABCC
007003	60s ----gAAAAA 70s AABAAAAAa 80s AAAAA	015014	70s -----bAAAA 80s AAAAAA 90s AAAAAA	021012	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
007004	70s -----a 80s AAAAAa	015015	80s -----c 90s AAAAAA	021013	60s -----FAAAAAA 70s AAAAAAA 80s AABCC
007005	70s -----111 80s 1-aaa	015016	80s -----1 90s AAAAAA	021014	60s -----AAAAA 70s AAAAAAA 80s AABCC
008001	30s -----1c 40s fcccccccc 50s bBBAAAAAA 60s AAAAAAA 70s AAAAAA	016001	40s -----Cc 50s cBAAbAAAA 60s AAAAAAA 70s AAAAAA	021015	60s -----FAAAAAA 70s AAAAAAA 80s AABCC
008002	50s ----gAAABAAAA 60s AAAAAAA 70s AAAAAA 80s AAAAAA	016002	50s -----gAAAA 60s AAAAAAA 70s AAAAAA	021016	60s -----FAAAAAA 70s AAAAAAA 80s AABCC
008003	50s ----gAAABAAAA 60s AAAAAAA 70s AAAAAA 80s AAAAAA	016003	60s -----gAAAA 70s AAAAAA 80s AAAAAA	021017	60s -----FAAAAAA 70s AAAAAAA 80s AABCC
008004	50s ----FAAAAAA 60s AAAAAAA 70s AAAAAA 80s AAAAAA	016004	70s ----gAAAAA 80s AAAAAA	021018	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
008005	50s ----FAAAAAA 60s AAAAAAA 70s AAAAAA 80s AAAAAA	017001	50s -----E 60s AAAAAAA 70s AAAAAA	021019	60s -----FAAAAAA 70s AAAAAAA 80s AABCC
008006	50s ----FAAAAAA 60s AAAAAAA 70s AAAAAA 80s AAAAAA	017002	50s -----E 60s AAAAAA 70s AAAAAA	021020	60s -----FAAAAAA 70s AAAAAAA 80s AABCC
008007	50s ----FAAAAAA 60s AAAAAAA 70s AAAAAA 80s AAAAAA	017003	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	021021	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
008008	50s ----FAAAAAA 60s AAAAAAA 70s AAAAAA 80s AAAAAA	017004	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	021022	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
008009	50s ----FAAAAAA 60s AAAAAAA 70s AAAAAA 80s AAAAAA	017005	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	021023	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
008010	50s ----FAAAAAA 60s AAAAAAA 70s AAAAAA 80s AAAAAA	017006	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	021024	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
009001	50s ----e 60s AAAAAAA 70s AAAAAA 80s AAAAAA	018001	50s -----EAA 60s AAAAAAA 70s AAAAAA	021025	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
009002	60s AAAAAAA 70s AAAAAA 80s AAAAAA	018002	50s -----g 60s AAAAAAA 70s AAAAAA	021026	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
009003	60s -----11111111E 70s AAAAAAA 80s AAAAAA	018003	60s -----gAAAAA 70s AAAAAA 80s AAAAAA	021027	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
009004	80s AAAAAA	018004	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	021028	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
010001	60s -----1111FAAAA 70s AAAAAAA 80s ACCc	018005	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	021029	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
010002	60s -----111111111 70s 1EABAAAAA 80s AAAAA	018006	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	021030	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
010003	80s ----ef	018007	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	021031	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
011001	60s -----11111111E 70s AAAAAAA 80s AAAAAA	018008	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	021032	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
011002	60s -----11111111F 70s CBAAAAAA 80s AAAAAA	018009	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	021033	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
011003	60s -----111111111 70s 111EAAAAA 80s AAAAAA	018010	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	021034	60s -----FAAAAAA 70s AAAAAAA 80s AAAAA
012001	20s -----e 30s BBBBBBAAAA 40s BBBBBBAAAA 50s CCCCCCCCCC 60s CBAAAAAA 70s AAAAAA	019001	50s -----AAA 60s AAAAAAA 70s AAAAAA	022001	60s ----1cBAAA 70s AAAAAAA 80s AAAAAA
012002	70s ----gAAAAA 80s AAAAAA 90s AAAAAA	019002	60s -----FAAAAAA 70s AAAAAA 80s AAAAAA	022002	50s ----gAA 60s AAAAAAA 70s AAAAAAA
012003	70s -----aaaa 80s AAAAAA 90s AAAAAA	019003	60s -----FAAAAAA 70s AAAAAA 80s AAAAAA	022003	50s -----gAA 60s AAAAAAA 70s AAAAAAA
012004	70s -----aaaa 80s AAAAAA 90s AAAAAA	019004	60s -----FAAAAAA 70s AAAAAA 80s AAAAAA	022004	60s -----gAA 70s AAAAAAA 80s AAAAAA
012005	70s -----aaaa 80s AAAAAA 90s AAAAAA	019005	60s -----FAAAAAA 70s AAAAAA 80s AAAAAA	022005	60s -----gAA 70s AAAAAAA 80s AAAAAA
012006	70s -----aa 80s AAAAAA 90s AAAAAA	019006	60s -----FAAAAAA 70s AAAAAA 80s AAAAAA	022006	60s -----gAA 70s AAAAAAA 80s AAAAAA
012007	80s ----d	019007	60s -----FAAAAAA 70s AAAAAA 80s AAAAAA	022007	60s -----FAAAAAA 70s AAAAAAA 80s AAAAAA
013001	70s -----e 80s AAAAAA 90s AAAAAA	019008	60s -----FAAAAAA 70s AAAAAA 80s AAAAAA	022008	60s -----FAAAAAA 70s AAAAAAA 80s AAAAAA
013002	80s -----ccc 80s AAAAAA 90s AAAAAA	019009	60s -----FAAAAAA 70s AAAAAA 80s AAAAAA	022009	60s -----FAAAAAA 70s AAAAAAA 80s AAAAAA
013003	70s -----c 80s AAAAAA 90s AAAAAA	019010	60s -----FAAAAAA 70s AAAAAA 80s AAAAAA	023001	50s -----gAA 60s AAAAAAA 70s AAAAAAA
013004	70s -----ccc 80s AAAAAA 90s AAAAAA	019011	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	023002	50s -----gAA 60s AAAAAAA 70s AAAAAAA
013005	70s -----ccc 80s AAAAAA 90s AAAAAA	019012	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	023003	50s -----gAA 60s AAAAAAA 70s AAAAAAA
013006	70s -----CCCC 80s CCAA 90s AAAAAA	019013	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	023004	50s -----gAA 60s AAAAAAA 70s AAAAAAA
013007	70s -----AA 80s AAAAAA 90s AAAAAA	019014	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	023005	50s -----gAA 60s AAAAAAA 70s AAAAAAA
013008	70s -----AA 80s AAAAAA 90s AAAAAA	019015	70s -----FAAAAAA 80s AAAAAA 90s AAAAAA	023006	50s -----gAA 60s AAAAAAA 70s AAAAAAA
014001	60s -----FAA 70s AAAAAAA 80s AAAAAA	020001	60s -----FAAAAAA 70s AAAAAAA 80s AAAAAA	023007	50s -----gAA 60s AAAAAAA 70s AAAAAAA
014002	80s AAAAA 90s AAAAAA 100s AAAAAA	020002	60s -----FAAAAAA 70s AAAAAAA 80s AAAAAA	023008	50s -----gAA 60s AAAAAAA 70s AAAAAAA
014003	80s AAAAA 90s AAAAAA 100s AAAAAA	020003	60s -----FAAAAAA 70s AAAAAAA 80s AAAAAA	023009	50s -----gAA 60s AAAAAAA 70s AAAAAAA
014004	80s AAAAA 90s AAAAAA 100s AAAAAA	020004	60s -----FAAAAAA 70s AAAAAAA 80s AAAAAA	023010	50s -----gAA 60s AAAAAAA 70s AAAAAAA

Stn number	Gauged daily flows, monthly peaks and rainfall		Stn number	Gauged daily flows, monthly peaks and rainfall		Stn number	Gauged daily flows, monthly peaks and rainfall	
023009	60s -----g	70s AAADDAAAF*	027020	50s - - -eAAA	60s BBAABABAB	028028	60s -----paaa	70s aaAAFAAAAA
023010	60s EAAL	70s EAAAAAAAAA	027021	50s AABBBCEEE	60s B111	028027	60s -----FAFAA	70s AAAAAAE111
023011	60s a--11	70s EAAAAAAAAA	027022	70s AAAAAAE111	60s 11Aaaa	028028	70s -----11E	80s ae 11
023012	60s EAAAAa	80s a--11	027023	60s eAAAAAAAAA	70s AAAAAAAAAA	028029	60s -----paaa	70s aeFAAAAAA
023013	70s 1EAAAAAAAA	80s A1111	027024	60s eAAAAAAAAA	70s AAAAAEAFAA	028030	60s AAAAAE	70s aeFAAAAAA
023014	60s 1ECCCCCCC	70s 1EAE11111	027025	60s E1-11	80s AAAAAE	028031	60s AAAAAF	70s AAAAAAAAAA
023015	60s 1EFFFFFEE	50s FAFAFB88a	027026	60s eAAAAAAAAA	70s AAAAAE11AAAA	028032	60s AAAAAE	70s AAAAAAAAAA
024001	50s -----ICC	60s CCCCCBA	027027	60s AAAAAE	70s AAAAAAAAAA	028033	60s AAAAAE	70s AAAAAAAAAA
024002	70s AAAAAAFAAA	80s EAAAAa	027028	60s eAAAAA	70s AAAAAEAFAA	028034	60s AAAAAE	70s AAAAAAAAAA
024003	50s -----a	60s AAAAAAAAAA	027029	60s AAAAAE	70s AAAAAEAFAA	028035	60s AAAAAE	70s AAAAAAAAAA
024004	70s AAAAAAAAAA	80s AAAAAE	027030	60s AAAAAE	70s AAAAAEAFAA	028036	60s AAAAAE	70s AAAAAAAAAA
024005	50s -----a	60s AAAAAEAFAA	027031	60s AAAAAE	70s AAAAAEAFAA	028037	60s AAAAAE	70s AAAAAAAAAA
024006	70s AAAAAAAAAA	80s AAAAAE	027032	60s AAAAAE	70s AAAAAEAFAA	028038	60s AAAAAE	70s AAAAAAAAAA
024007	50s -----a	60s AAAAAEAFAA	027033	60s AAAAAE	70s AAAAAEAFAA	028039	60s AAAAAE	70s AAAAAAAAAA
024008	70s AAAAAAAAAA	80s AAAAAE	027034	60s AAAAAE	70s AAAAAEAFAA	028040	60s AAAAAE	70s AAAAAAAAAA
024009	70s -----a	80s AAAAAE	027035	60s AAAAAE	70s AAAAAEAFAA	028041	60s AAAAAE	70s AAAAAAAAAA
025001	50s -----a	60s AAAAAEAFAA	027036	60s AAAAAE	70s AAAAAEAFAA	028042	60s AAAAAE	70s AAAAAAAAAA
025002	70s AAAAAAAAAA	80s AAAAAE	027037	60s AAAAAE	70s AAAAAEAFAA	028043	60s AAAAAE	70s AAAAAAAAAA
025003	50s -----a	60s AAAAAEAFAA	027038	60s AAAAAE	70s AAAAAEAFAA	028044	60s AAAAAE	70s AAAAAAAAAA
025004	70s AAAAAAAAAA	80s AAAAAE	027039	60s AAAAAE	70s AAAAAEAFAA	028045	60s AAAAAE	70s AAAAAAAAAA
025005	50s -----a	60s AAAAAEAFAA	027040	60s AAAAAE	70s AAAAAEAFAA	028046	60s AAAAAE	70s AAAAAAAAAA
025006	70s AAAAAAAAAA	80s AAAAAE	027041	60s AAAAAE	70s AAAAAEAFAA	028047	60s AAAAAE	70s AAAAAAAAAA
025007	50s -----a	60s AAAAAEAFAA	027042	60s AAAAAE	70s AAAAAEAFAA	028048	60s AAAAAE	70s AAAAAAAAAA
025008	70s AAAAAAAAAA	80s AAAAAE	027043	60s AAAAAE	70s AAAAAEAFAA	028049	60s AAAAAE	70s AAAAAAAAAA
025009	50s -----a	60s AAAAAEAFAA	027044	60s AAAAAE	70s AAAAAEAFAA	028050	60s AAAAAE	70s AAAAAAAAAA
025010	70s AAAAAAAAAA	80s AAAAAE	027045	60s AAAAAE	70s AAAAAEAFAA	028051	60s AAAAAE	70s AAAAAAAAAA
025011	50s -----a	60s AAAAAEAFAA	027046	60s AAAAAE	70s AAAAAEAFAA	028052	60s AAAAAE	70s AAAAAAAAAA
025012	70s AAAAAAAAAA	80s AAAAAE	027047	60s AAAAAE	70s AAAAAEAFAA	028053	60s AAAAAE	70s AAAAAAAAAA
025013	50s -----a	60s AAAAAEAFAA	027048	60s AAAAAE	70s AAAAAEAFAA	028054	60s AAAAAE	70s AAAAAAAAAA
025014	70s AAAAAAAAAA	80s AAAAAE	027049	60s AAAAAE	70s AAAAAEAFAA	028055	60s AAAAAE	70s AAAAAAAAAA
025015	50s -----a	60s AAAAAEAFAA	027050	60s AAAAAE	70s AAAAAEAFAA	028056	60s AAAAAE	70s AAAAAAAAAA
025016	70s AAAAAAAAAA	80s AAAAAE	027051	60s AAAAAE	70s AAAAAEAFAA	028057	60s AAAAAE	70s AAAAAAAAAA
025017	50s -----a	60s AAAAAEAFAA	027052	60s AAAAAE	70s AAAAAEAFAA	028058	60s AAAAAE	70s AAAAAAAAAA
025018	70s AAAAAAAAAA	80s AAAAAE	027053	60s AAAAAE	70s AAAAAEAFAA	028059	60s AAAAAE	70s AAAAAAAAAA
025019	50s -----a	60s AAAAAEAFAA	027054	60s AAAAAE	70s AAAAAEAFAA	028060	60s AAAAAE	70s AAAAAAAAAA
025020	70s AAAAAAAAAA	80s AAAAAE	027055	60s AAAAAE	70s AAAAAEAFAA	028061	60s AAAAAE	70s AAAAAAAAAA
025021	50s -----a	60s AAAAAEAFAA	027056	60s AAAAAE	70s AAAAAEAFAA	028062	60s AAAAAE	70s AAAAAAAAAA
025022	70s AAAAAAAAAA	80s AAAAAE	027057	60s AAAAAE	70s AAAAAEAFAA	028063	60s AAAAAE	70s AAAAAAAAAA
025023	50s -----a	60s AAAAAEAFAA	027058	60s AAAAAE	70s AAAAAEAFAA	028064	60s AAAAAE	70s AAAAAAAAAA
025024	70s AAAAAAAAAA	80s AAAAAE	027059	60s AAAAAE	70s AAAAAEAFAA	028065	60s AAAAAE	70s AAAAAAAAAA
025025	50s -----a	60s AAAAAEAFAA	027060	60s AAAAAE	70s AAAAAEAFAA	028066	60s AAAAAE	70s AAAAAAAAAA
025026	70s AAAAAAAAAA	80s AAAAAE	027061	60s AAAAAE	70s AAAAAEAFAA	028067	60s AAAAAE	70s AAAAAAAAAA
025027	50s -----a	60s AAAAAEAFAA	027062	60s AAAAAE	70s AAAAAEAFAA	028068	60s AAAAAE	70s AAAAAAAAAA
025028	70s AAAAAAAAAA	80s AAAAAE	027063	60s AAAAAE	70s AAAAAEAFAA	028069	60s AAAAAE	70s AAAAAAAAAA
026001	50s -----a	60s AAAAAEAFAA	027064	60s AAAAAE	70s AAAAAEAFAA	028070	60s AAAAAE	70s AAAAAAAAAA
026002	70s AAAAAAAAAA	80s AAAAAE	028001	30s -----a	40s BCCCCCCCC	029001	60s AAAAAEAFAA	70s AAAAAEAFAA
026003	60s AAAAAE	70s AAAAAEAFAA	028002	50s AAAAAEAFAA	60s AAAAAEAFAA	029002	60s AAAAAEAFAA	70s AAAAAEAFAA
026004	50s -----a	60s AAAAAEAFAA	028003	30s AAAAAEAFAA	40s AAAAAEAFAA	029003	60s AAAAAEAFAA	70s AAAAAEAFAA
026005	70s AAAAAEAFAA	80s AAAAAE	028004	50s AAAAAEAFAA	60s AAAAAEAFAA	029004	60s AAAAAEAFAA	70s AAAAAEAFAA
026006	80s AAAAAE	90s AAAAAE	028005	70s AAAAAEAFAA	80s AAAAAEAFAA	029005	60s AAAAAEAFAA	70s AAAAAEAFAA
027001	30s -----a	40s 1EBAABCCF	028006	50s AAAAAEAFAA	60s AAAAAEAFAA	029006	60s AAAAAEAFAA	70s AAAAAEAFAA
027002	50s 11FAAAAAE	60s AAAAAEAFAA	028007	70s AAAAAEAFAA	80s AAAAAEAFAA	029007	60s AAAAAEAFAA	70s AAAAAEAFAA
027003	70s AAAAAEAFAA	80s AAAAAE	028008	50s AAAAAEAFAA	60s AAAAAEAFAA	029008	60s AAAAAEAFAA	70s AAAAAEAFAA
027004	50s -----a	60s AAAAAEAFAA	028009	70s AAAAAEAFAA	80s AAAAAEAFAA	029009	60s AAAAAEAFAA	70s AAAAAEAFAA
027005	60s AAAAAEAFAA	70s AAAAAEAFAA	028010	50s AAAAAEAFAA	60s AAAAAEAFAA	030001	50s -----a	60s AAAAAEAFAA
027006	50s AAAAAEAFAA	60s AAAAAE	028011	70s AAAAAEAFAA	80s AAAAAEAFAA	030002	60s AAAAAEAFAA	70s AAAAAEAFAA
027007	60s AAAAAEAFAA	70s AAAAAEAFAA	028012	50s AAAAAEAFAA	60s AAAAAEAFAA	030003	60s AAAAAEAFAA	70s AAAAAEAFAA
027008	50s AAAAAEAFAA	60s AAAAAE	028013	70s AAAAAEAFAA	80s AAAAAEAFAA	030004	60s AAAAAEAFAA	70s AAAAAEAFAA
027009	60s AAAAAEAFAA	70s AAAAAEAFAA	028014	50s AAAAAEAFAA	60s AAAAAEAFAA	030005	60s AAAAAEAFAA	70s AAAAAEAFAA
027010	50s AAAAAEAFAA	60s AAAAAE	028015	70s AAAAAEAFAA	80s AAAAAEAFAA	030006	60s AAAAAEAFAA	70s AAAAAEAFAA
027011	60s AAAAAEAFAA	70s AAAAAEAFAA	028016	50s AAAAAEAFAA	60s AAAAAEAFAA	030007	60s AAAAAEAFAA	70s AAAAAEAFAA
027012	50s AAAAAEAFAA	60s AAAAAE	028017	70s AAAAAEAFAA	80s AAAAAEAFAA	030008	60s AAAAAEAFAA	70s AAAAAEAFAA
027013	60s AAAAAEAFAA	70s AAAAAEAFAA	028018	50s AAAAAEAFAA	60s AAAAAEAFAA	030009	60s AAAAAEAFAA	70s AAAAAEAFAA
027014	50s AAAAAEAFAA	60s AAAAAE	028019	70s AAAAAEAFAA	80s AAAAAEAFAA	030010	60s AAAAAEAFAA	70s AAAAAEAFAA
027015	60s AAAAAEAFAA	70s AAAAAEAFAA	028020	50s AAAAAEAFAA	60s AAAAAEAFAA	030011	60s AAAAAEAFAA	70s AAAAAEAFAA
027016	50s AAAAAEAFAA	60s AAAAAE	028021	70s AAAAAEAFAA	80s AAAAAEAFAA	030012	60s AAAAAEAFAA	70s AAAAAEAFAA
027017	60s AAAAAEAFAA	70s AAAAAEAFAA	028022	50s AAAAAEAFAA	60s AAAAAEAFAA	030013	60s AAAAAEAFAA	70s AAAAAEAFAA
027018	50s AAAAAEAFAA	60s AAAAAE	028023	70s AAAAAEAFAA	80s AAAAAEAFAA	030014	60s AAAAAEAFAA	70s AAAAAEAFAA
027019	60s AAAAAEAFAA	70s AAAAAEAFAA	028024	50s AAAAAEAFAA	60s AAAAAEAFAA	030015	60s AAAAAEAFAA	70s AAAAAEAFAA
027020	50s AAAAAEAFAA	60s AAAAAE	028025	70s AAAAAEAFAA	80s AAAAAEAFAA	030016	60s AAAAAEAFAA	70s AAAAAEAFAA

Stn number	Gauged daily flows, monthly peaks and rainfall	Stn number	Gauged daily flows, monthly peaks and rainfall	Stn number	Gauged daily flows, monthly peaks and rainfall
031015	70s -eBBBFFF	80s EFFFef	033034	60s ------ILA	70s AAAAAAAAAA
031016	60s -----L	70s ALAAAAAAAA	033035	50s AAAAAA	60s CCCCCCCCCC
031017	80s AAAAAA	70s EEEeee	033037	70s CCCCCCIII	80s IIIII
031018	70s -FFFFF	80s FFFeee	033039	60s -----L	70s AAAAAAAAAA
031019	70s EEEEEEE	80s EEEeee	033040	80s AAAAAA	70s AAAAAAAAAA
031020	70s eEBBFF	80s FFFeee	033041	70s LAABAA	80s AABBAe
031021	70s eFAEEEEE	80s AEEeee	033042	70s LAABAA	80s AABBAe
031022	60s -----I	70s EFBFFFFF	033043	70s LAABAA	80s AABBAe
031023	70s -LLAEBB	80s AAAAAA	033044	70s LAABAA	80s AABBAe
031024	70s FAFFEEEEE	80s EEEeee	033045	70s LAABAA	80s AABBAe
031025	70s -----ee	80s LAABAA	033046	70s LAABAA	80s AABBAe
031026	70s -IIIIIIIA	80s AAAAAA	033047	70s LAABAA	80s AABBAe
031027	80s -edder		033048	70s LAABAA	80s AABBAe
031028	80s -flee		033049	70s LAABAA	80s AABBAe
032001	30s -	40s eBAAAAAAAA	033050	70s LAABAA	80s AABBAe
032002	50s AAAAAAAAAA	60s BAAABARCC	033051	70s LAABAA	80s AABBAe
032003	70s BAAABARCC	80s BAAABAR	033052	70s LAABAA	80s AABBAe
032004	30s -----eA	40s AABABARAB	033053	70s LAABAA	80s AABBAe
032005	50s BAAABARAB	60s AABABARAB	033054	70s LAABAA	80s AABBAe
032006	70s BAAABARAB	80s AABABARAB	033055	70s LAABAA	80s AABBAe
032007	30s -----eA	40s AABABARAB	033056	70s LAABAA	80s AABBAe
032008	50s AAAAAAAAAA	60s AABABARAB	033057	70s LAABAA	80s AABBAe
032009	70s AAAAAAAAAA	80s AABABARAB	033058	70s LAABAA	80s AABBAe
032010	30s -----eA	40s AABABARAB	033059	70s LAABAA	80s AABBAe
032011	50s AAAAAAAAAA	60s AABABARAB	033060	70s LAABAA	80s AABBAe
032012	70s AAAAAAAAAA	80s AABABARAB	033061	70s LAABAA	80s AABBAe
032013	30s -----eA	40s AABABARAB	033062	70s LAABAA	80s AABBAe
032014	50s AAAAAAAAAA	60s AABABARAB	033063	70s LAABAA	80s AABBAe
032015	70s AAAAAAAAAA	80s AABABARAB	033064	70s LAABAA	80s AABBAe
032016	30s -----eA	40s AABABARAB	033065	70s LAABAA	80s AABBAe
032017	50s AAAAAAAAAA	60s AABABARAB	033066	70s LAABAA	80s AABBAe
032018	70s AAAAAAAAAA	80s AABABARAB	033067	70s LAABAA	80s AABBAe
032019	30s -----eA	40s AABABARAB	033068	70s LAABAA	80s AABBAe
032020	50s AAAAAAAAAA	60s AABABARAB	034001	50s AAAAAAAAAA	60s AAAAAAAAAA
032021	70s AAAAAAAAAA	80s AABABARAB	034002	50s AAAAAAAAAA	60s AAAAAAAAAA
032022	30s -----eA	40s AABABARAB	034003	50s AAAAAAAAAA	60s AAAAAAAAAA
032023	50s AAAAAAAAAA	60s AABABARAB	034004	50s AAAAAAAAAA	60s AAAAAAAAAA
032024	70s AAAAAAAAAA	80s AABABARAB	034005	50s AAAAAAAAAA	60s AAAAAAAAAA
032025	30s -----eA	40s AABABARAB	034006	50s AAAAAAAAAA	60s AAAAAAAAAA
032026	50s AAAAAAAAAA	60s AABABARAB	034007	50s AAAAAAAAAA	60s AAAAAAAAAA
032027	70s AAAAAAAAAA	80s AABABARAB	034008	50s AAAAAAAAAA	60s AAAAAAAAAA
032028	30s -----eA	40s AABABARAB	034009	50s AAAAAAAAAA	60s AAAAAAAAAA
032029	50s AAAAAAAAAA	60s AABABARAB	034010	50s AAAAAAAAAA	60s AAAAAAAAAA
032030	70s AAAAAAAAAA	80s AABABARAB	034011	50s AAAAAAAAAA	60s AAAAAAAAAA
032031	30s -----eA	40s AABABARAB	034012	50s AAAAAAAAAA	60s AAAAAAAAAA
033001	70s AAAAAAAAAA	80s AABABARAB	034013	50s AAAAAAAAAA	60s AAAAAAAAAA
033002	30s -----eA	40s AABABARAB	034014	50s AAAAAAAAAA	60s AAAAAAAAAA
033003	50s AAAAAAAAAA	60s AABABARAB	034015	50s AAAAAAAAAA	60s AAAAAAAAAA
033004	70s AAAAAAAAAA	80s AABABARAB	034016	50s AAAAAAAAAA	60s AAAAAAAAAA
033005	30s -----eA	40s AABABARAB	034017	50s AAAAAAAAAA	60s AAAAAAAAAA
033006	50s AAAAAAAAAA	60s AABABARAB	034018	50s AAAAAAAAAA	60s AAAAAAAAAA
033007	70s AAAAAAAAAA	80s AABABARAB	034019	50s AAAAAAAAAA	60s AAAAAAAAAA
033008	30s -----eA	40s AABABARAB	035001	60s AAAAAAAAAA	70s AAAAAAAAAA
033009	50s AAAAAAAAAA	60s AABABARAB	035002	60s AAAAAAAAAA	70s AAAAAAAAAA
033010	70s AAAAAAAAAA	80s AABABARAB	035003	60s AAAAAAAAAA	70s AAAAAAAAAA
033011	30s -----eA	40s AABABARAB	035004	60s AAAAAAAAAA	70s AAAAAAAAAA
033012	50s AAAAAAAAAA	60s AABABARAB	035005	60s AAAAAAAAAA	70s AAAAAAAAAA
033013	70s AAAAAAAAAA	80s AABABARAB	035006	60s AAAAAAAAAA	70s AAAAAAAAAA
033014	30s -----eA	40s AABABARAB	035007	60s AAAAAAAAAA	70s AAAAAAAAAA
033015	50s AAAAAAAAAA	60s AABABARAB	035008	60s AAAAAAAAAA	70s AAAAAAAAAA
033016	70s AAAAAAAAAA	80s AABABARAB	035009	60s AAAAAAAAAA	70s AAAAAAAAAA
033017	30s -----eA	40s AABABARAB	035010	60s AAAAAAAAAA	70s AAAAAAAAAA
033018	50s AAAAAAAAAA	60s AABABARAB	035011	60s AAAAAAAAAA	70s AAAAAAAAAA
033019	70s AAAAAAAAAA	80s AABABARAB	035012	60s AAAAAAAAAA	70s AAAAAAAAAA
033020	30s -----eA	40s AABABARAB	035013	60s AAAAAAAAAA	70s AAAAAAAAAA
033021	50s AAAAAAAAAA	60s AABABARAB	036001	20s AAAAAAAAAA	30s AAAAAAAAAA
033022	70s AAAAAAAAAA	80s AABABARAB	036002	20s AAAAAAAAAA	30s AAAAAAAAAA
033023	30s -----eA	40s AABABARAB	036003	20s AAAAAAAAAA	30s AAAAAAAAAA
033024	50s AAAAAAAAAA	60s AABABARAB	036004	20s AAAAAAAAAA	30s AAAAAAAAAA
033025	70s AAAAAAAAAA	80s AABABARAB	036005	20s AAAAAAAAAA	30s AAAAAAAAAA
033026	30s -----eA	40s AABABARAB	036006	20s AAAAAAAAAA	30s AAAAAAAAAA
033027	50s AAAAAAAAAA	60s AABABARAB	036007	20s AAAAAAAAAA	30s AAAAAAAAAA
033028	70s AAAAAAAAAA	80s AABABARAB	036008	20s AAAAAAAAAA	30s AAAAAAAAAA
033029	30s -----eA	40s AABABARAB	036009	20s AAAAAAAAAA	30s AAAAAAAAAA
033030	50s AAAAAAAAAA	60s AABABARAB	036010	20s AAAAAAAAAA	30s AAAAAAAAAA
033031	70s AAAAAAAAAA	80s AABABARAB	036011	20s AAAAAAAAAA	30s AAAAAAAAAA
033032	30s -----eA	40s AABABARAB	036012	20s AAAAAAAAAA	30s AAAAAAAAAA
033033	50s AAAAAAAAAA	60s AABABARAB	036013	20s AAAAAAAAAA	30s AAAAAAAAAA



Stn number	Gauged daily flows, monthly peaks and rainfall	Stn number	Gauged daily flows, monthly peaks and rainfall	Stn number	Gauged daily flows, monthly peaks and rainfall
039009	50s -- -- -- 70s -- -- --	040012	60s ----- 80s -----	043021	70s -- -- --
039010	50s ----- 70s -----	040013	60s ----- 80s -----	044001	60s -----
039011	50s ----- 70s -----	040014	70s ----- 80s -----	044002	60s -----
039012	50s ----- 70s -----	040015	60s ----- 80s -----	044003	60s -----
039013	50s ----- 70s -----	040016	60s ----- 80s -----	044004	60s -----
039014	50s ----- 70s -----	040017	60s ----- 80s -----	044005	60s -----
039015	60s ----- 80s -----	040018	60s ----- 80s -----	044006	60s -----
039016	60s ----- 80s -----	040019	60s ----- 80s -----	044007	60s -----
039017	60s ----- 80s -----	040020	60s ----- 80s -----	044008	60s -----
039018	60s ----- 80s -----	040021	60s ----- 80s -----	044009	60s -----
039019	60s ----- 80s -----	040022	60s ----- 80s -----	045001	60s -----
039020	60s ----- 80s -----	040023	60s ----- 80s -----	045002	60s -----
039021	60s ----- 80s -----	040024	60s ----- 80s -----	045003	60s -----
039022	60s ----- 80s -----	041001	60s ----- 80s -----	045004	60s -----
039023	60s ----- 80s -----	041002	60s ----- 80s -----	045005	60s -----
039024	60s ----- 80s -----	041003	60s ----- 80s -----	045006	60s -----
039025	60s ----- 80s -----	041004	60s ----- 80s -----	045007	60s -----
039026	60s ----- 80s -----	041005	60s ----- 80s -----	045008	60s -----
039027	60s ----- 80s -----	041006	60s ----- 80s -----	045009	60s -----
039028	60s ----- 80s -----	041007	60s ----- 80s -----	046001	60s -----
039029	60s ----- 80s -----	041008	60s ----- 80s -----	046002	60s -----
039030	60s ----- 80s -----	041009	60s ----- 80s -----	046003	60s -----
039031	60s ----- 80s -----	041010	60s ----- 80s -----	046004	60s -----
039032	60s ----- 80s -----	041011	60s ----- 80s -----	046005	60s -----
039033	60s ----- 80s -----	041012	60s ----- 80s -----	046006	60s -----
039034	60s ----- 80s -----	041013	60s ----- 80s -----	046007	60s -----
039035	60s ----- 80s -----	041014	60s ----- 80s -----	046008	60s -----
039036	60s ----- 80s -----	041015	60s ----- 80s -----	047001	60s -----
039037	60s ----- 80s -----	041016	60s ----- 80s -----	047002	60s -----
039038	60s ----- 80s -----	041017	60s ----- 80s -----	047003	60s -----
039040	60s ----- 80s -----	041018	60s ----- 80s -----	047004	60s -----
039042	60s ----- 80s -----	041019	60s ----- 80s -----	047005	60s -----
039043	60s ----- 80s -----	041020	60s ----- 80s -----	047006	60s -----
039044	60s ----- 80s -----	041021	60s ----- 80s -----	047007	60s -----
039046	60s ----- 80s -----	041022	60s ----- 80s -----	047008	60s -----
039049	60s ----- 80s -----	041023	60s ----- 80s -----	047009	60s -----
039051	60s ----- 80s -----	041024	60s ----- 80s -----	047010	60s -----
039052	60s ----- 80s -----	041025	60s ----- 80s -----	047011	60s -----
039053	60s ----- 80s -----	041026	60s ----- 80s -----	047012	60s -----
039054	60s ----- 80s -----	042001	60s ----- 80s -----	048001	60s -----
039055	60s ----- 80s -----	042002	60s ----- 80s -----	048002	60s -----
039056	60s ----- 80s -----	042003	60s ----- 80s -----	048003	60s -----
039057	60s ----- 80s -----	042004	60s ----- 80s -----	048004	60s -----
039058	60s ----- 80s -----	042005	60s ----- 80s -----	048005	60s -----
039059	60s ----- 80s -----	042006	60s ----- 80s -----	048006	60s -----
039060	60s ----- 80s -----	042007	60s ----- 80s -----	048007	60s -----
039061	60s ----- 80s -----	042008	60s ----- 80s -----	048008	60s -----
039062	60s ----- 80s -----	042009	60s ----- 80s -----	048009	60s -----
039063	60s ----- 80s -----	042010	60s ----- 80s -----	048010	60s -----
039064	60s ----- 80s -----	042011	60s ----- 80s -----	048011	60s -----
039065	60s ----- 80s -----	042012	60s ----- 80s -----	049001	60s -----
039066	60s ----- 80s -----	042013	60s ----- 80s -----	049002	60s -----
039067	60s ----- 80s -----	042014	60s ----- 80s -----	049003	60s -----
039068	60s ----- 80s -----	042015	60s ----- 80s -----	049004	60s -----
039069	60s ----- 80s -----	042016	60s ----- 80s -----	050001	60s -----
039070	60s ----- 80s -----	042017	60s ----- 80s -----	050002	60s -----
039071	60s ----- 80s -----	042018	60s ----- 80s -----	050003	60s -----
039072	60s ----- 80s -----	042019	60s ----- 80s -----	050004	60s -----
039073	60s ----- 80s -----	042020	60s ----- 80s -----	051001	60s -----
039074	60s ----- 80s -----	043001	60s ----- 80s -----	051002	60s -----
039075	60s ----- 80s -----	043002	60s ----- 80s -----	052001	60s -----
039076	60s ----- 80s -----	043003	60s ----- 80s -----	052002	60s -----
039077	60s ----- 80s -----	043004	60s ----- 80s -----	052003	60s -----
039078	60s ----- 80s -----	043005	60s ----- 80s -----	052004	60s -----
039079	60s ----- 80s -----	043006	60s ----- 80s -----	052005	60s -----
039080	60s ----- 80s -----	043007	60s ----- 80s -----	052006	60s -----
039081	60s ----- 80s -----	043008	60s ----- 80s -----	052007	60s -----
039082	60s ----- 80s -----	043009	60s ----- 80s -----	052008	60s -----
039083	60s ----- 80s -----	043010	60s ----- 80s -----	053001	60s -----
039084	60s ----- 80s -----	043011	60s ----- 80s -----	053002	60s -----
039085	60s ----- 80s -----	043012	60s ----- 80s -----	053003	60s -----
039086	60s ----- 80s -----	043013	60s ----- 80s -----	053004	60s -----
039087	60s ----- 80s -----	043014	60s ----- 80s -----	054001	60s -----
039088	60s ----- 80s -----	043015	60s ----- 80s -----	054002	60s -----
039089	60s ----- 80s -----	043016	60s ----- 80s -----	054003	60s -----
039090	60s ----- 80s -----	043017	60s ----- 80s -----	054004	60s -----
039091	60s ----- 80s -----	043018	60s ----- 80s -----	055001	60s -----
039092	60s ----- 80s -----	043019	60s ----- 80s -----	055002	60s -----
040001	50s ----- 70s -----	043020	60s ----- 80s -----	055003	60s -----
040002	50s ----- 70s -----	044001	60s ----- 80s -----	055004	60s -----
040003	50s ----- 70s -----	044002	60s ----- 80s -----	056001	60s -----
040004	60s ----- 80s -----	044003	60s ----- 80s -----	056002	60s -----
040005	50s ----- 70s -----	044004	60s ----- 80s -----	056003	60s -----
040006	50s ----- 70s -----	044005	60s ----- 80s -----	056004	60s -----
040007	50s ----- 70s -----	044006	60s ----- 80s -----	057001	60s -----
040008	50s ----- 70s -----	044007	60s ----- 80s -----	057002	60s -----
040009	60s ----- 80s -----	044008	60s ----- 80s -----	057003	60s -----
040010	60s ----- 80s -----	044009	60s ----- 80s -----	057004	60s -----
040011	60s ----- 80s -----	044010	60s ----- 80s -----	058001	60s -----

[illegible]

Gauged daily flows, monthly peaks and rainfall				Stn number	Gauged daily flows, monthly peaks and rainfall				Stn number	Gauged daily flows, monthly peaks and rainfall				Stn number
067007	30s 50s 70s 80s 90s	-----AA AAAAA A''''-11'' ----- AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	071005 071006	60s 80s 90s 70s 60s	AAAAA AAAAA ----- ----- AAAA	70s 80s 90s 70s 60s	AAR:11'' ''11AA''AAA ----- ----- -----	079004	60s 80s 90s 70s 80s	11FCBAAAA AAAAA 11LAAAAAA AAAAA 111''''FAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067003	20s 40s 60s 80s 90s	-----AAAAA AAAAA AAAAA AAAAA AAAAA	30s 50s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	071007 071008 071010 071011	60s 80s 90s 70s 60s	AAAAA AAAAA -----AA' -----111'' AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	079005 079006	60s 80s 90s 70s 80s	11LAAAAAA AAAAA 111''''FAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067004	30s 50s 70s 80s 90s	-----AA -----AE1' 111LABBAA ''1CAAA AAAAAAAT1'	40s 60s 80s 90s 70s	----- AAAAA AAAAA AAAAA AAAAA	071013 071014	60s 80s 90s 70s 60s	AAAA AAAA ----- ----- AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	080001 080002	60s 80s 90s 70s 80s	11LAAAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067006	60s 80s 90s 70s 80s	AAAAAAAT1' AAACC AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	072001 072002	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	081001 081002	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067007	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	072004 072005	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	081003 081004	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067008	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	072006 072007	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	082001 082002	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067009	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	072008 072009	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	082003 082004	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067010	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	072010 072011	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	083001 083002	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067011	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073001 073002	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	083003 083004	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067012	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073003 073004	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	083005 083006	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067013	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073005 073006	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	083007 083008	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067014	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073007 073008	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084001 084002	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067015	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073009 073010	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084003 084004	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067016	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073011 073012	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084005 084006	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067017	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073013 073014	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084007 084008	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067018	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073015 073016	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084009 084010	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067019	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073017 073018	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084011 084012	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067020	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073019 073020	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084013 084014	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067021	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073021 073022	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084015 084016	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067022	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073023 073024	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084017 084018	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067023	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073025 073026	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084019 084020	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067024	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073027 073028	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084021 084022	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067025	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073029 073030	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084023 084024	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067026	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073031 073032	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084025 084026	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067027	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073033 073034	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084027 084028	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067028	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073035 073036	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084029 084030	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067029	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073037 073038	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084031 084032	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067030	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073039 073040	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084033 084034	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067031	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073041 073042	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084035 084036	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067032	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073043 073044	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084037 084038	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067033	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073045 073046	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084039 084040	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067034	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073047 073048	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084041 084042	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067035	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073049 073050	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084043 084044	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067036	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073051 073052	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084045 084046	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
067037	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	40s 60s 70s 80s 90s	AAAAA AAAAA AAAAA AAAAA AAAAA	073053 073054	60s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	70s 80s 90s 70s 60s	AAAA AAAA AAAA AAAA AAAA	084047 084048	60s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA	70s 80s 90s 70s 80s	AAAAA AAAAA AAAAA AAAAA AAAAA
0670														

Stn. number	Gauged daily flows, monthly peaks and rainfall		Stn. number	Gauged daily flows, monthly peaks and rainfall		Stn. number	Gauged daily flows, monthly peaks and rainfall	
097002	60s -1111111111	70s 11AAAAA	201007	70s 1111111111	80s CAAAA1	203025	80s ---11	
	80s AAAAAa		201008	80s ---11		203027	70s -1100000000	80s CAAFF
101001	60s -1effFeFF	70s FeCCFeC111	203010	60s -1111111111	70s F000000000	203028	70s -1100000000	80s C11FF
	80s 111111			80s CAAAA1		203033	80s -a11	
101002	50s -----11111	60s 111111EaaE1	203011	80s ---11		204001	80s ---FF	
	70s FFFFBEEEEE	80s EBFAB	203012	80s ---11				
201002	80s -111		203017	70s aaaaaa0000	80s c--1	205003	70s -ccccaaaa	
201005	70s -11CCCCCCC	80s CCAAA1	203018	70s ---11	80s ---11	205004	70s -----00	80s c--FF
201006	70s ---e---	80s ---11	203020	80s ---11		205005	70s -EACCF1CC	80s CAAAA1
			203021	70s ---11	80s ---11	205008	80s ---11	

Produced 3rd July 1986 New summaries available on request.



Stn. number	Naturalised daily and monthly flows	Stn. number	Naturalised daily and monthly flows	Stn. number	Naturalised daily and monthly flows
049003	60s ----- CCC	057001	50s --FEELLEE	078001	50s ---FEEF--
050001	60s ----- A	057002	30s ---- FEE	078002	70s F
050002	60s --FEEBBA	50s EEEEFEE	60s -FEEFBAAA	078003	60s --FEEEF
	70s C	70s C		078004	80s --FEEF
051002	70s ---FEEF	057003	60s ----CAAAC	077002	60s -----FEE
		057004	50s ---- FEE	70s EF	
052002	50s ---FEEL	058001	60s --FEF--C	078004	70s -F
052005	60s -FEEBFEF	058003	60s --FEEF		
052006	60s FEEEEE			079002	50s -----F
052008	60s FEEBFEF	059001	50s -----FF	70s EF	60s EEEFEEFE
052014	60s -----FE			079003	50s -----F
	70s FEEFFFF	060001	50s -----FF	70s EEF	80s EEEEEEE
053004	50s -----FE			079006	60s -----FEE
	70s FEEEEEAAA	061002	60s FEEEBCC	70s EF	
054001	70s CAAAAAAA	062001	50s -----F	081003	60s -----FE
	40s AAAAAAAA			70s FF	
	50s AAAAAAAA	064001	60s -----FF	082001	60s ---FEEEEE
054003	60s EEEEFEEF			70s EF	
	70s AAAAAAAA	068002	60s -FEEEEE	084001	70s FEEF
	40s AAAAAAAA	068003	60s --FEF-FE	084002	60s -----FE
	60s AAAAAAAA	068011	60s -----CA	084003	60s ---FEEEE
	80s AAAAD			084004	50s -----FEE
054005	50s ---FEE	067001	50s -FE	70s FFEF	60s EEEEEEE
	70s -----AA	70s FEE	60s FFEFEEEEE	084005	50s -----FE
054010	60s ---CC	067002	50s ---FEEEEE	70s EEEEF	60s EEEEEEE
054013	60s -----CACA	067003	60s -----FE	084006	70s FEEF
054014	60s ---CAA	067004	50s -FEF	084007	60s -----FEE
054017	60s -----CC	067006	60s FEEELFEF	084008	60s -----FEE
		067007	60s ---FEEEE	084009	60s -----FFF
055001	30s -----FFF	067015	70s FFL	084011	60s ---FEEFE
	50s EEEFFFFEE	067017	60s --E	084012	60s ---FEEEEE
	70s EF			084013	60s -----FEE
055002	30s -----FEE	068001	60s -FEEFEF	084014	60s ---FEEEEE
	50s EEEEEE	068003	40s -----F	084015	70s FEEF
	70s AAAAAAAA	60s EEEF	50s EEEELLLL	084016	70s FEEF
059006	30s ---FEE	068004	60s FEEEEE	084017	60s -----FE
	50s LELLFEEF	068005	60s -FEEFEF	084018	60s -----F
	70s EEEEEE	068006	60s -FEEFEF	084019	60s -----FE
055007	30s -----FF	069004	40s ---FEE	084020	70s FEEF
	50s FEEEEE			084021	70s FEF
	70s AAAAAAAA	070001	50s -FEEFF	084022	70s ---FF
055023	60s ---F	70s CC	60s -FEEBAACC	084023	70s ---FF
	80s AAA			084024	70s ---FF
056001	50s -----FEE	071001	60s -----CC	084027	70s ---FF
	70s FEEEEE	071002	60s ---FBAAAA		
056002	50s -----FFE			085001	60s ---FEEEEE
	70s EEEEF	072001	60s ---FEEBAAA	085002	60s -----FEE
056003	60s ---FEF			085003	70s FEEF
056004	60s ---FEFE	075001	60s --FEF	086001	70s FEEF
056006	60s --FEEFE	075002	60s -FEEF	086002	70s FEEF
056011	70s FEEELFF			097002	70s ---EEEEE
056012	70s -FEEEF				

Produced 3rd July 1986. New summaries available on request.





# GROUNDWATER LEVEL MEASUREMENT

## Background

Groundwater may be obtained from almost any stratum in the sedimentary succession in the British Isles, as well as from metamorphic and igneous rocks. In many, such as clays and shales, volcanics and metamorphics, the permeable zone may well be limited to the depth to which weathering may reach which is unlikely to be more than some 50 metres beneath the ground surface. In those strata which are not generally recognised to be aquifers, well-yields tend to be small (of the order of only a few cubic metres per day), uncertain as a continuous source (tending to fail in prolonged droughts), with an indifferent groundwater quality, and with the sources vulnerable to pollution.

The more generally recognised aquifers are listed in Table 9, with the Chalk and Upper Greensand, the Lincolnshire Limestone and the Permo-Triassic sandstones as the most important from the viewpoint of public supply. From such aquifers as these, yields of 3000 to 4500 cubic metres a day are not unusual. For the next category, including the Lower Greensand and the Magnesian Limestone, yields to individual wells of 1500 to 3000 cubic metres a day can generally be expected. In the other aquifers, while occasional sources sufficient for large supplies may be developed, they tend to be important only locally.

The groundwater resources of an aquifer are naturally replenished from rainfall. During the summer months, when the potential evapotranspiration is high and soil moisture deficits are appreciable, little infiltration takes place. There is a notable exception to this rule in the Eden valley of Cumbria where, enclosed between the massifs of Cross Fell and the Lake District, sufficiently heavy and continuous summer rainfall occurs to maintain infiltration through part at least of most summers. The normal recharge of an aquifer takes place during the winter months when the potential evapotranspiration is low and soil moisture deficits are negligible.

There are few artificial reservoirs in the United Kingdom which are sufficiently large to support demands through the driest summers, assuming that they were full at the start of the summer, without some continuous contributions from river intakes. Prolonged dry spells lead in many rivers to reduced flow, particularly where the natural groundwater contribution (baseflow) is limited. Consequently, while surface water droughts may be in part due to the failure of runoff from winter rainfall to fill the reservoirs, they are more frequently caused by a decrease in the summer flows of streams and rivers. Surface water droughts do, however, lead to increased consumption of groundwater (where available). By way of contrast, a groundwater drought is caused by a lack of winter rainfall. Potentially, the most serious droughts occur when, as in 1975/6, a dry summer succeeds a notably dry winter.

## The Observation Borehole Network

Groundwater level observation wells\* are generally used for one of two purposes, either to monitor levels regionally and thus to estimate groundwater resource fluctuations, or to monitor the effects locally of groundwater abstractions. The number of observation wells required in different areas varies widely. Over the last two decades, a target density was sought of one well to 25 to 35 km<sup>2</sup>. During the last few years, it has become apparent in some districts that satisfactory information can be obtained with fewer wells, while in others the densities had to be substantially increased.

The observation well network was reviewed in 1981 by the Institute of Geological Sciences (now the British Geological Survey) with the aim of selecting 200 to 300 sites from the existing Water Data Unit archive, to be used for periodical assessments of the national groundwater situation. The selection was based upon the hydrogeological units identified in an investigation of the groundwater resources of the United Kingdom (Monkhouse and Richards, 1982); one site was chosen for each aquifer present within each unit. For Scotland and for Northern Ireland this was not possible due to the very limited number of observation wells available. In England and Wales, the total number finally selected was 175 (Monkhouse and Murti, 1981). Since that date, a number of changes have been made, and the register shown in this report lists 173 observation wells of which 50 per cent are in the Chalk and Upper Greensand aquifer and 21 per cent in the Permo-Triassic sandstones. Further changes may be expected from time to time.

The Water Data Unit was officially disbanded in 1982 and the archive was taken over by the British Geological Survey. The archive comprises a series of paper files containing original data and a series of computer files; the latter have been transferred to a NERC computer. The present situation is that the computer archive holding data from the 173 selected wells, listed in the borehole register (see page 168), is being updated and validated, this process being approximately 50 per cent completed. The remaining sites inherited from the Water Data Unit are held on a separate computer archive; the validation of this, the historic archive, will be undertaken in the future, but the information is complete only to about 1977.

\* In this context, a well includes both shafts (constructed by hand-digging) and boreholes (constructed by machinery).

## References

- Monkhouse, R. A. and Murti, P. K. (1981). The rationalisation of groundwater observation well networks in England and Wales. *Inst. Geol. Sciences, Report No. WD/81/1*, 18 pp.

Monkhouse, R. A. and Richards, H. J. (1982). *Groundwater Resources of the United Kingdom*. Commission of the European Communities, pub. Th. Schaeffer Druckerei GmbH, Hannover, 252 pp.

### *Measurement and recording of groundwater levels*

The majority of observation wells are measured manually either weekly or monthly. The usual instrument is an electric probe suspended upon a graduated cable or tape, contact being made by the water to complete a circuit which gives either an audible or visual signal at the surface. Measurements are normally made to the nearest 10 millimetres.

Some observation wells are equipped with continuous water level recorders, almost invariably operating by a float on the water surface connected by a cable to a sensing device. These recorders may be driven by clockwork or by electric battery power. Levels are usually recorded on paper charts or on punched paper tapes, and experiments have been made recording directly onto magnetic tapes. Water levels are generally recorded to the nearest 10 millimetres, although instruments may be accurate to 1 millimetre.

Pressure transducers have also been considered for water level measurement. However, available transducers will measure accurately over only a narrow range of fluctuation (up to 2 or 3 metres), or much less accurately over a wide range. They are rarely used at the present time.

## **Register of Selected Groundwater Observation Wells**

### *Scope*

The listed sites were selected so as to give a reasonably representative cover for aquifers throughout England and Wales. The wells are grouped according to the aquifers to which the water level variations in the wells are attributed. A generalised list of aquifers is given on page 167. While the aquifers are tabulated in stratigraphical order, most of the local names for individual strata are omitted and the intervening aquicludes are not shown.

The five columns of the register are:

### *Well Number*

The well numbering system is based on the National Grid. Each 100 kilometre square is designated by prefix characters, e.g. SE, and is divided into 100 squares of 10 kilometre sides designated by numbers 00 to 99. Thus, the first site given in the register, SE93/4, is located in the 10 kilometre square SE93, while the number after the solidus denotes that the site is the fourth accessed in this square. A suffix such as A, B, etc., defines the particular well when there are several at the same site.

Two asterisks following the Well Number indicates an index well for which hydrographs are shown on pages 30 to 35. The location of the index wells and the outcrop areas of the principal aquifers are shown on Figure 15.

### *Grid Reference*

The six or eight figure references given in the register relate to the 100 kilometre National Grid square designated by the prefix characters in the Well Number. The distribution of the 100 kilometre squares of the National Grid is shown on Figure 16.

### *Site*

The name by which the well or borehole is normally referenced.

The location of all the sites listed in the register are shown on Figure 16.

### *Water Authority*

An abbreviation referencing the water authority responsible for the groundwater level measurement. A full list of water authority codes together with the corresponding names and addresses appears on pages 178 and 179.

### *Records Commence*

The first year for which records are held on the groundwater archive.

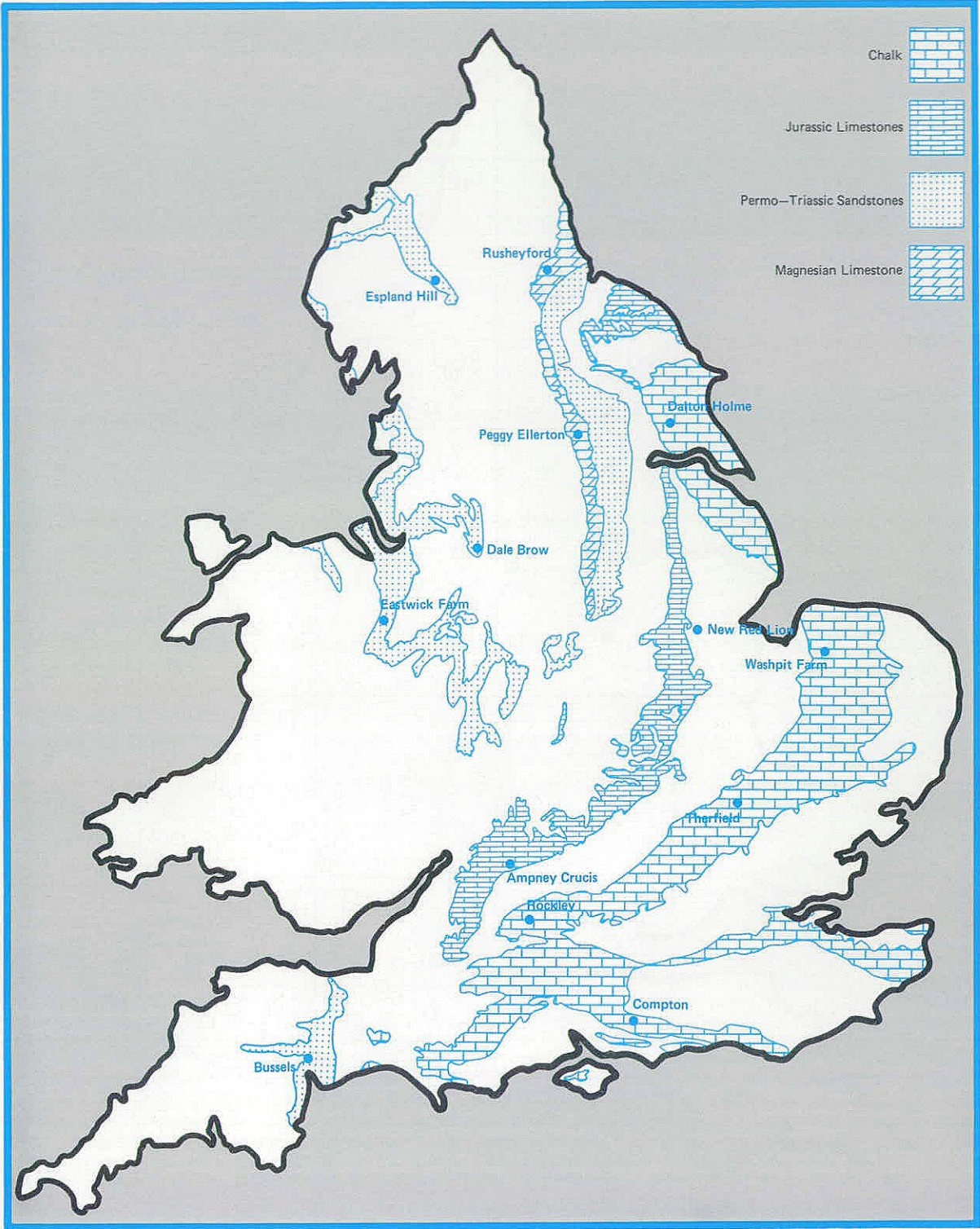


Figure 15. Principal aquifers and borehole location map.



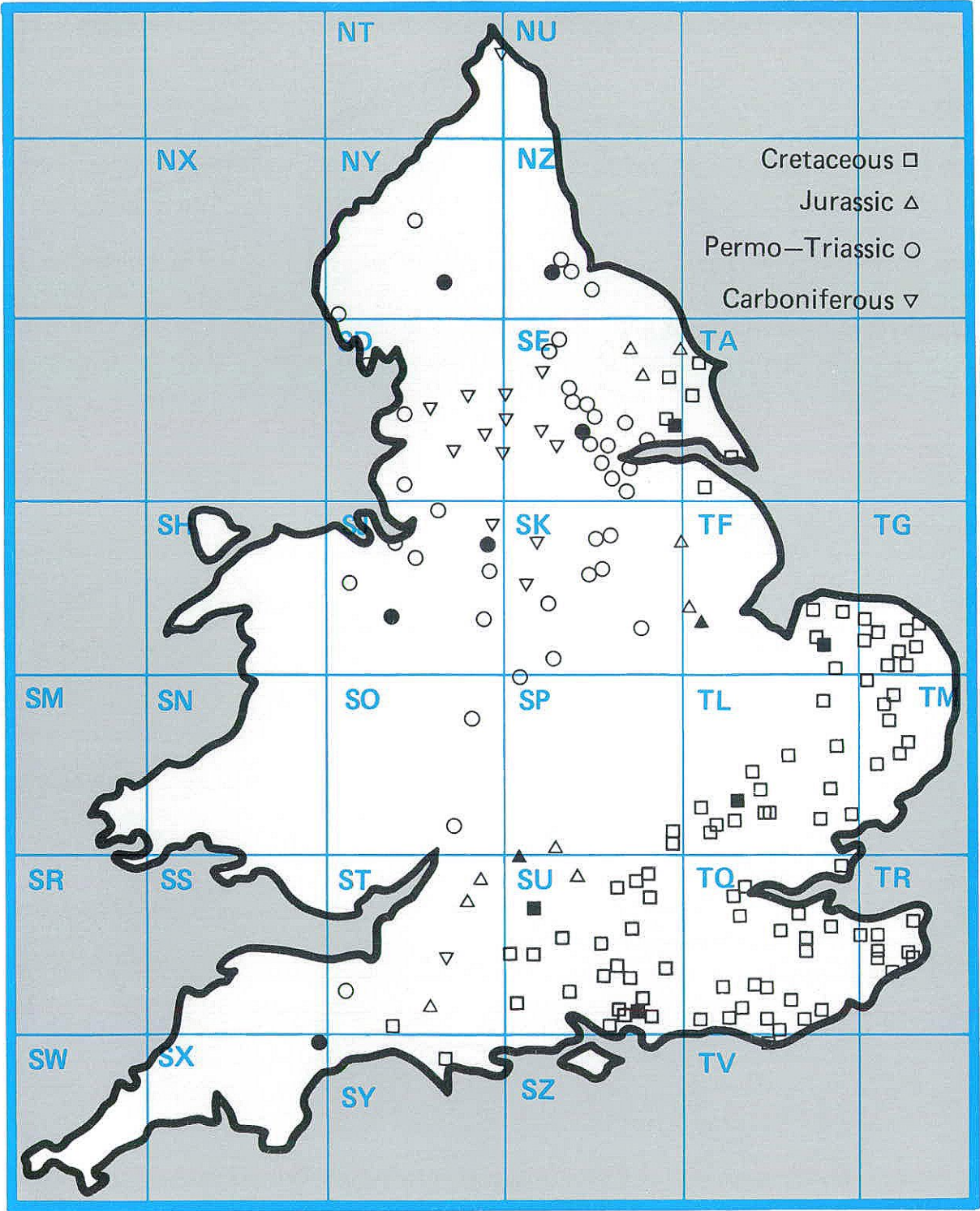


Figure 16. The representative borehole network in England and Wales.

TABLE 9. GENERALISED LIST OF AQUIFERS IN THE UNITED KINGDOM

Era	System	Subsystem	Aquifer	Importance
CAINOZOIC	Quaternary	Holocene	Superficial deposits	*
		Pleistocene	Upper and Middle Pleistocene Crag	* **
	Tertiary	Pliocene	Coralline Crag	**
		Oligocene		
		Eocene	Bagshot Beds	
			Lower London Tertiaries Blackheath & Oldhaven Beds Woolwich & Reading Beds Thanet Beds	* **
	Cretaceous	Upper Cretaceous	Chalk and Upper Greensand	****
		Lower Cretaceous	Lower Greensand	***
			Hastings Beds	**
MESOZOIC	Jurassic	Upper Jurassic	Portland & Purbeck Beds (Spilsby Sandstone)	* (**)
			Corallian	**
		Middle Jurassic	Great & Inferior Oolitic limestones (Lincolnshire Limestone)	** (****)
	Lower Jurassic		Bridport & Yeovil Sands	**
			Marlstone Rock	*
UPPER PALAEOZOIC	Triassic	Keuper		
		Bunter		
	Permian		Permo-Triassic sandstones	****
			Magnesian Limestone	***
	Carboniferous	Upper Carboniferous	Coal Measures	**
			Millstone Gnt	**
		Lower Carboniferous	Carboniferous Limestone	**
	Devonian			
			Old Red Sandstone	*

Key to aquifer importance:

- \* aquifer of minor importance only
- \*\* aquifer producing small, but useful, local supplies
- \*\*\* aquifer of local importance, often providing public supplies
- \*\*\*\* aquifer of major importance



# THE REGISTER

Well Number	Grid Reference	Site	Water Authority	Records Commence
<b>Aquifer : Chalk and Upper Greensand</b>				
SE93/4	9212 3634	Dale Plantation	YWA	1970
SE94/5 **	9651 4530	Dalton Holme	YWA	1889
SE97/31	9345 7079	Green Lane	YWA	1972
SP90/26	9470 0875	Champneys	TWA	1962
SP91/59	9380 1570	Pitstone Green Farm	AWA	1970
ST30/7	3763 0667	Lime Kiln Way	SWWA	1969
SU01/5 B	0160 1946	Woodyates	WWA	1942
SU04/2	0310 4883	Tilshead	WWA	1966
SU14/1	1690 4840	Netheravon	WWA	1968
SU17/57 **	1655 7174	Rockley	TWA	1933
SU32/3	3816 2745	Bailey's Down Farm	SWA	1963
SU35/14	3318 5647	Woodside	SWA	1963
SU51/10	5877 1654	Hill Place Farm	SWA	1965
SU53/94	5589 3497	Abbotstone	SWA	1976
SU57/159	5628 7530	Calversleys Farm	TWA	1973
SU61/28 B	6474 1772	West End House	SWA	1953
SU61/46	6892 1524	Hinton Manor	SWA	1953
SU64/28	6360 4048	Lower Wield Farm	SWA	1961
SU68/49	6442 8525	Well Place Farm	TWA	1976
SU71/23 **	7755 1490	Compton House	SWA	1893
SU73/8	7048 3491	Faringdon Station	TWA	1961
SU76/46	7367 6251	Riseley Mill	TWA	1975
SU78/45 A	7419 8924	Stonor Park	TWA	1961
SU81/1	8356 1440	Chilgrove House	SWA	1836
SU87/1	8336 7885	Farm Cottage, Coldharbour	TWA	1950
SU89/7	8103 9417	Piddington	TWA	1966
SY68/34	662 881	Ashton Farm	WWA	1977
TA06/16	0490 6120	Nafferton	YWA	1964
TA07/28	0940 7740	Hunmanby Hall	YWA	1976
TA10/40	1375 0885	Little Brocklesby	AWA	1926
TA21/14	2670 1890	Church Farm	YWA	1971
TF72/11	7710 2330	Off Farm	AWA	1971
TF74/1 A	7541 4087	Choseley Farm	AWA	1950
TF80/33	8738 0526	Houghton Common	AWA	1971
TF81/2 A**	8138 1960	Washpit Farm	AWA	1950
TF94/1	9160 4135	Cuckoo Lodge	AWA	1952
TG00/92	0440 0020	High Elm Farm, Deopham	AWA	1971
TG02/3	0317 2476	Main Street, Foulsham	AWA	1952
TG03/25 B	0382 3583	The hall, Brinton	AWA	1952
TG11/5	1691 1101	The Spinney, Costessey	AWA	1952
TG12/7	1126 2722	Heydon Pumping Station	AWA	1974
TG21/9	2400 1657	Frettenham Depot	AWA	1952
TG21/10	2699 1140	Grange Farm	AWA	1952
TG23/21	2932 3101	Melbourne House	AWA	1974
TG32/67	3390 2020	School Road	AWA	1975
TG33/14	3428 3348	Eden Hall	AWA	1961
TL11/4	1560 1555	Mackerye End House	TWA	1960
TL11/9	1692 1965	The Holt	TWA	1964
TL13/24	1200 3026	West Hitchin	AWA	1970
TL22/10	2978 2433	Box Hall	TWA	1964
TL33/4 **	3330 3720	Therfield Rectory	TWA	1883
TL42/6	4536 2676	Hixham Hall	TWA	1964
TL42/8	4669 2955	Berden Hall	TWA	1964

TL44/12	4522 4182	Redlands Hall	TWA	1964
TL66/2	6191 6013	Hall Farm	AWA	1964
TL72/54	7982 2516	Rectory Road	AWA	1968
TL84/6	8465 4106	Smeetham Cottages, Bulmer	AWA	1963
TL86/110	8850 6470	Cattishall Farm	AWA	1969
TL89/37	8131 9001	Grimes Graves	AWA	1971
TL92/1	9657 2562	Lexden Pumping Station	AWA	1961
TM17/1	1671 7903	Old Parsonage House	AWA	1952
TM15/112	1201 5618	Dial Farm	AWA	1968
TM18/2	1983 8600	Pulham Market	AWA	1952
TM19/2	1810 9270	Hill Farm	AWA	1952
TM26/46	2461 6109	Fairfields	AWA	1974
TM26/95	2786 6397	Strawberry Hill	AWA	1974
TQ01/133	0850 1170	Chantry Post, Sullington	SWA	1977
TQ21/11	2850 1289	Old Rectory, Pyecombe	SWA	1958
TQ28/119 B	2996 8051	Trafalgar Square	TWA	1845
TQ31/50	3220 1180	North Bottom	SWA	1979
TQ35/5	3363 5924	Rose & Crown	TWA	1876
TQ38/9 A	3509 8536	Hackney Public Baths	TWA	1953
TQ50/7	5592 0380	Old Rectory, Folkington	SWA	1965
TQ56/19	5648 6124	West Kingsdown	TWA	1961
TQ57/118	5880 7943	Thurrock A13	AWA	1979
TQ58/2 B	5622 8408	Bush Pit Farm	TWA	1967
TQ66/48	6649 6873	Owlets	SWA	1968
TQ86/55	8528 6185	Stockbury Valley	SWA	1963
TQ99/11	947 971	Burnham	AWA	1975
TR05/6	0239 5995	Step Cottage	SWA	1970
TR14/42	1065 4395	Kingsmill Down	SWA	1971
TR15/58	1281 5148	Cotterell Court	SWA	1970
TR24/13	2880 4937	Eythorne Green	SWA	1953
TR34/81	3173 4725	Church Farm	SWA	1971
TR36/62	3208 6634	Alland Grange	SWA	1969
TV59/7 C	5290 9920	Westdean 3	SWA	1904

**Aquifer: Lower Greensand**

SU72/47	7697 2414	Westmark Farm,	SWA	1970
SU84/8 A	8716 4087	Tilford Pumping Station	TWA	1971
TL45/19	4110 5204	River Farm	AWA	1973
TQ41/79	4714 1271	Southover	SWA	1970
TQ75/72	7038 5218	Marshall Cottages	SWA	1969
TQ75/86	7135 5652	Kiln Barn Farm	SWA	1973
TR13/21	1132 3881	Ashley House	SWA	1972
TR23/32	2075 3650	Morehall Depot	SWA	1972

**Aquifer: Hastings Beds**

TQ22/1	2348 2770	The Bungalow	SWA	1964
TQ42/10	4684 2794	Greystones	SWA	1966
TQ43/16	4245 3145	Garde Wych Cross	SWA	1973
TQ61/47	6894 1389	Old Kennels	SWA	1966
TQ62/89	6282 2348	Rose Lodge	SWA	1973
TQ71/123	7969 1659	Red House	SWA	1974

**Aquifer: Upper Jurassic**

SE68/16	6890 8590	Kirkbymoorside	YWA	1973
SE77/76	7690 7300	Broughton	YWA	1975
SE98/8	9910 8540	Seavegate Farm	YWA	1971
SU49/40 B	4117 9307	East Hanney	TWA	1978

**Aquifer: Middle Jurassic**

SP00/62 **	0595 0190	Ampney Crusis	TWA	1958
SP20/113	2721 0634	Alvescot Road	TWA	1975
ST51/57	591 169	Over Compton	WWA	1971
ST77/8	7834 7682	Tormartin 1	WWA	1973
ST89/32	8642 9030	Westonbirt School	WWA	1932

**Aquifer: Lincolnshire Limestone**

SK97/25	9800 7817	Grange de Lings	AWA	1975
TF03/37 **	0885 3034	New Red Lion	AWA	1964
TF04/14	0429 4273	Silk Willoughby	AWA	1972

**Aquifer: Permo-Triassic sandstones**

NY00/328	0511 0247	Browbank Layby	NWWA	1974
NY45/16	4947 5667	Corby Hill	NWWA	1977
NY62/4 **	6883 2301	Espland Hill	NWWA	1976
NZ41/34	4861 1835	Northern Dairies	NWA	1974
SD27/8	2172 7171	Furness Abbey	NWWA	1972
SD41/32	4400 1164	Yew Tree Farm	NWWA	1971
SD44/15	4396 4928	Moss Edge Farm	NWWA	1961
SE36/9	3590 6480	Newfield Farm	YWA	1968
SE39/20 B	3004 9244	Scruton Village	YWA	1969
SE44/4 B	4880 4850	Healaugh Pumping Station	YWA	1968
SE45/3	4470 5580	Cattal Maltings	YWA	1969
SE52/4	5473 2363	Southfield Lane	YWA	1955
SE55/4	5829 5383	Clifton Hospital	YWA	1967
SE60/24	6784 0709	Woodhouse Grange	STWA	1980
SE64/1	6751 4463	Wheldrake Station	YWA	1971
SE72/3 B	7047 2149	Rawcliffe Bridge	YWA	1971
SE83/9	8040 3640	Holme-on-Spalding Moor	YWA	1972
SJ15/15	1374 5556	Oaklands Bridge	WELSH	1972
SJ33/39 **	3814 3831	Eastwick Farm	WELSH	1974
SJ37/2 H	3805 7676	Bowater 6	NWWA	1971
SJ56/45 E	5042 6953	Ashton 4	NWWA	1969
SJ69/138	6311 9620	Kenyon Lane	NWWA	1968
SJ83/1 A	8969 3474	Stone	STWA	1974
SJ87/32 **	8969 7598	Dale Brow	NWWA	1973
SJ96/41	9310 6301	Rushton Spencer 1	NWWA	1969
SK00/41	067 012	Nuttall's Farm	STWA	1974
SK21/111	2731 1419	Grange Wood	STWA	1967
SK24/22	2539 4431	Burtonshuts Farm	STWA	1972
SK56/53	5632 6440	Peafield Lane	STWA	1969
SK68/21	6100 8374	Crossley Hill Wood	STWA	1970
SK73/50	7693 3228	Woodland Farm	STWA	1980
SO71/18	7170 1970	Stores Cottage	STWA	1973
SO87/28	8160 7970	Hillfields	STWA	1961
ST12/48	108 267	Milverton Bypass	WWA	1972
SX99/37 B**	9528 9872	Bussels 7A S	WWA 1	972
SY09/21 A	0666 9235	Heathlands	SWWA	1951

**Aquifer: Magnesian Limestone**

NZ22/22 **	2875 2896	Rusheyford NE	NWA	1967
NZ32/1 B	3780 2983	Butterwick	NWA	1967
NZ33/20	3349 3501	Garmondsway	NWA	1974
SE28/28	2460 8520	Bedale	YWA	1972
SE35/4	3830 5830	Castle Farm	YWA	1970
SE43/9 *	4535 3964	Peggy Ellerton Farm	YWA	1968
SE43/14	4660 3550	Coldhill Farm 35	YWA	1971
SE51/2	5210 1530	Westfield Farm	YWA	1971
SK46/71	4800 6030	Stanton Hill	STWA	1973

SK58/43	5248 8018	Southheads Lane	STWA	1973
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**Aquifer: Coal Measures**

SD62/35	6925 2945	Lion Brewery	NWWA	1974
SE23/4	2850 3414	Silver Blades Ice Rink	YWA	1971
SJ98/6	9394 8950	Chadkirk Marple	NWWA	1982

**Aquifer: Millstone Grit**

SD55/5	5820 5350	Abbeystead	NWWA	1972
SD75/6	7826 5962	Hersley Farm	NWWA	1973
SD83/111	8803 3949	Red Scar Mill	NWWA	1974
SD92/8	9833 2660	Horsehold Farm	YWA	1971
SE04/7	0295 4792	Lower Heights Farm	YWA	1971
SE24/2 B	2067 4053	Green Lane Dyeworks	YWA	1971
SE27/8	2120 7380	Kirkby Moor Farm	YWA	1971

**Aquifer: Carboniferous Limestone**

NT95/21	9695 5055	Middle Ord	NWA	1974
SE06/1	0241 6183	Jerry Laithe Farm	YWA	1971
SK15/16	1292 5547	Alstonfield	STWA	1974
SK17/13	1778 7762	Hucklow South	STWA	1969
ST64/36	6610 4460	Waterlip Quarry	WWA	1975



# THE GROUNDWATER DATA RETRIEVAL SERVICE

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A suite of retrieval programs has been written in order to facilitate data usage. At the present time, retrievals using the options described below are available for most of the sites listed in the register of selected groundwater observation wells, although not all the data contained within this archive have been validated.

Five options are available for retrieving data. A description of each option is given below and examples of the computer listings and graphical output are given on pages 174 to 177. Options 1 to 4 give details of the well site, the period of record available, and maximum and minimum recorded levels in addition to the output specific to each option. Data may be retrieved for a specific well or for groups of wells by well reference numbers, by area (using National Grid References), by aquifer, by hydrometric area, by water authority, or by any combination of these parameters.

## *Cost of Service*

To cover the computing and handling costs, a moderate charge will be made depending on the

output options selected. Estimates of these charges may be obtained on request; the right to amend or waive charges is reserved.

## *Requests for retrieval options:*

Requests for retrieval options should include: the name and address to which the output should be directed, the sites, or areas, for which data are required together with the period of record of interest (where appropriate) and the title of the required option. Where possible, a daytime telephone number should be given.

Requests should be addressed to:

The British Geological Survey  
Hydrogeological Research Group  
Maclean Building  
Crowmarsh Gifford  
WALLINGFORD  
OXFORDSHIRE OX10 8BB  
Telephone (0491) 38800

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## LIST OF GROUNDWATER DATA RETRIEVAL OPTIONS

OPTION NUMBER	TITLE	NOTES
1	Table of groundwater levels	All recorded observations of groundwater level in metres above Ordnance Datum, with dates of observation and maximum and minimum levels for each year. Specific years, or ranges of years, may be requested, otherwise the full period of record is given.
	Table of annual maximum and minimum groundwater levels	Annual maximum and minimum groundwater levels in metres above Ordnance Datum with dates of occurrence. Specific years, or ranges of years, may be requested, otherwise the full period of record is given.
	Table of monthly maximum, minimum and mean groundwater levels	Monthly maximum, minimum and mean groundwater levels in metres above Ordnance Datum, together with the number of years contributing values to the calculation of each monthly mean. A specific period of years may be nominated, otherwise the full period of record is given.
	Hydrographs of groundwater levels	Provides a well hydrograph for a number of specified years. Castellated annual plots of monthly maximum, minimum and mean groundwater levels calculated from a nominated period of years are superimposed upon the hydrograph, provided that the nominated period exceeds 10 years. Tabulations of



Site details

nominated period exceeds 10 years. Tabulations of the monthly maximum, minimum and mean values are also listed, together with the number of years of record used in the calculations, and the number of observations used for each month.

The output comprises the well reference number of the British Geological Survey, the original (Water Data Unit) station number (where applicable), the hydrometric area, the aquifer name and code, the site name and location, the National Grid Reference, the depth of the well, the datum points (from which measurements are made), the altitude of the ground surface, the period of record and the water authority area in which the well or borehole is located.

Examples of these five options follow.

OPTION 1 TABLE OF GROUNDWATER LEVELS

Station number	TF03/37
Station name	NEW RED LION, ASLACKBY (CONTINUES OLD RED LION)
Grid Reference	TF 0885 3034
Water Authority	AWA
Hydrometric Area	30
Aquifer	Lincolnshire Limestone
Aquifer Code	13
EEC Unit	ANO3
Surface Level (MOD)	33.82
Datum Point (MOD)	33.45
Well Depth (M)	50.00
Max. Expected (MOD)	33.45
Min. Expected (MOD)	5.00
Period of records in Archive:-	1964 to 1985
Maximum GW Level for period of records	23.69
Number of Maxima	1
Date(s):-	14 03 1977
Minimum GW Level for period of records	3.29
Number of Minima	1
Date(s):-	24 08 1976

(Note: The above reference information is also provided with the output from options 2-4)

Station Number	TF03/37
Year of record	1975
Date	Level (MOD)
03 Jan	17.29
31 Jan	16.68
28 Feb	17.85
04 Apr	20.31
24 Apr	20.12
02 May	20.13
30 May	18.58
13 Jun	17.34
11 Jul	15.77

01 Aug	14.44
29 Aug	13.24
26 Sep	12.11
10 Oct	11.57
07 Nov	10.42
21 Nov	9.85
19 Dec	8.98

Maximum GW level for year 20.31  
 Number of maxima 1  
 Dates 04 Apr  
 Minimum GW Level for year 8.98  
 Number of minima 1  
 Dates 19 Dec

## OPTION 2 TABLE OF ANNUAL MAXIMUM AND MINIMUM GROUNDWATER LEVELS

Year	Max/Min	Level(MOD)	Date(s)	No of occasions
1965	Max	21.50	26 Dec	1
	Min	7.85	24 Jan	
1966	Max	23.51	06 Mar	1 1 Period
	Min	14.43	09 Oct-16 Oct	
1967	Max	19.79	04 Jun	
	Min	12.69	29 Oct	
1968	Max	22.06	17 Nov	
	Min	14.08	07 Jul	
1969	Max	23.17	30 Mar	
	Min	11.83	16 Nov	
1970	Max	20.21	26 Apr	1
	Min	10.76	15 Nov	

## OPTION 3 TABLE OF MONTHLY MAXIMUM, MINIMUM AND MEAN GROUNDWATER LEVELS

Period maximum, minimum and mean groundwater levels for years 1964 to 1985

	Maximum	Minimum	Mean	No of years
Jan	22.58	7.85	14.75	21
Feb	23.29	7.97	16.50	21
Mar	23.69	6.14	17.27	21
Apr	22.97	5.61	17.17	22
May	22.00	4.80	16.52	21
Jun	21.28	4.11	15.40	21
Jul	19.69	3.42	14.03	21
Aug	17.08	3.29	12.97	21
Sep	18.84	3.37	12.23	21
Oct	17.98	3.82	11.78	21
Nov	22.06	7.03	12.08	21
Dec	21.51	7.81	13.04	21

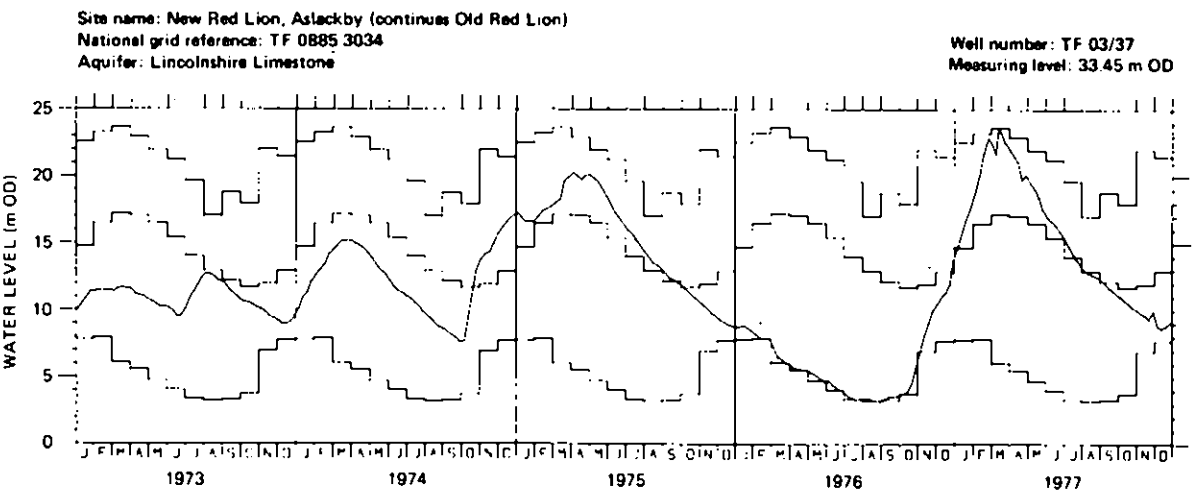
OPTION 4    HYDROGRAPHS OF GROUNDWATER LEVELS

Hydrograph of monthly maximums, minimums and means calculated from years 1964 to 1982

Therefore maximum number of years from which monthly maxs, mins and means may be calculated is 19

	Maximum	Minimum	Mean	No. of Years contributing values to mean calculations
Jan	22.58	7.85	14.77	18
Feb	23.29	7.97	16.47	18
Mar	23.69	6.14	17.34	18
Apr	22.97	5.61	17.23	19
May	22.00	4.80	16.42	19
Jun	21.28	4.11	15.23	19
Jul	19.69	3.42	13.97	19
Aug	17.08	3.29	12.98	19
Sep	18.84	3.37	12.28	19
Oct	17.98	3.82	11.85	19
Nov	22.06	7.03	12.20	19
Dec	21.51	7.81	13.09	19

Hydrograph(s) plotted for year ranges:- 1973 to 1977



Max, Min and Mean values calculated from years 1964 to 1982

## OPTION 5 SITE DETAILS

BGS NUMBER	COMPUTER NUMBER	HA	AQ	NAME—LOCATION REC—PERIOD—WA AQUIFER	GRID REF.	DEPTH (M)	DATUM POINT	SURFACE LEVEL
NZ22/22	25624	25	17	RUSHYFORD NORTH EAST, GREAT CHILTON 1957-1985 NWA MAGNESIAN LIMESTONE	NZ 2875 2896	62.50	92.65	92.53
SE94/5	26352	26	6	DALTON ESTATE, DALTON HOLME 1889-1985 YWA CHALK AND UPPER GREENSAND	SE 9651 4530	28.50	34.57	33.50
SE43/9	27360	27	17	PEGGY ELLERTON FARM, HAZLEWOOD 1968-1985 YWA MAGNESIAN LIMESTONE	SE 4535 3964	55.42	51.40	51.40
TF03/37	30229	30	13	NEW RED LION, ASLACKBY (CONTINUES OLD RED LION) 1964-1985 AWA LINCOLNSHIRE LIMESTONE	TF 0885 3034	50.00	33.45	33.82
TF81/2	33343	33	6	WASHPIT FARM 1950-1985 AWA CHALK AND UPPER GREENSAND	TF 8138 1960	40.40	80.21	80.69
TL33/4	38511	38	6	THERFIELD RECTORY, THERFIELD 1883-1984 TWA CHALK AND UPPER GREENSAND	TL 3330 3720	84.10	154.82	154.82
SU17/57	39350	39	6	ROCKLEY, OGBOURNE ST. ANDREW 1933-1985 TWA CHALK AND UPPER GREENSAND	SU 1655 7174	17.60	146.57	146.39
SU71/23 5	41426	41	6	COMPTON HOUSE, COMPTON 1894-1985 SWA CHALK AND UPPER GREENSAND	SU 7755 1490	53.80	81.37	81.37
SJ87/32	68476	68	16	DALE BROW, MACCLESFIELD 1973-1984 NWWA PERMO-TRIASSIC, SANDSTONES	SJ 8969 7598	152.40	138.66	138.36

# DIRECTORY OF MEASURING AUTHORITIES

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	Address	Code
<b>Water Authorities</b>		
Anglian Water	Amebury Road, Huntingdon PE18 6NZ	AWA
Northumbrian Water	Northumbria House, Regent Centre, Gosforth, Newcastle-upon-Tyne, NE3 3PX	NWA
North West Water	Dawson House, Liverpool Road, Great Sankey, Warrington, WA5 3LW	NWWA
Severn Trent Water	Abelson House, 2297 Coventry Road, Sheldon, Birmingham, B26 3PU	STWA
Southern Water	Guildbourne House, Chatsworth Road, Worthing BN11 1LD	SWA
South West Water	Peninsula House, Rydon Lane, Exeter EX2 7HR	SWWA
Thames Water	Nugent House, Vastern Road, Reading RG1 8DB	TWA
Welsh Water	Cambrian Way, Brecon, Powys LD3 7HP	WELS (WELSH)
Wessex Water	Wessex House, Passage Street, Bristol BS2 0JQ	WWA
Yorkshire Water	West Riding House, 67 Albion Street, Leeds LS1 5AA	YWA

## River Purification Boards

Clyde River Purification Board	Rivers House, Murray Road, East Kilbride, Glasgow G75 0LA	CRPB
Forth River Purification Board	Colinton Dell House, West Mill Road Colinton, Edinburgh, EH13 0PH	FRPB
Highland River Purification Board	Strathpeffer Road Dingwall IV15 9QY	HRPB
North East River Purification Board	Woodside House, Persley, Aberdeen AB2 2UQ	NERPB
Solway River Purification Board	Rivers House, Irongray Road Dumfries DG2 0JE	SRPB
Tay River Purification Board	3, South Street Perth PH2 8NJ	TRPB
Tweed River Purification Board	Burnbrae, Mossilee Road, Galashiels TD1 1NF	TWRPB

## Other measuring authorities

Borders Regional Council	West Grove, Waverley Road, Melrose TO6 9SJ	BRWO
Corby and District Water Company	Stanion Lane, Corby NN18 8ES	CDWC

Department of the Environment (Northern Ireland)	Stormont, Belfast BT4 3SS	DOEN
Dumfries and Galloway Regional Council (Water Department)	70 Terregles Street Dumfries DG2 9BB	DGRW
Essex Water Company	342 South Street Romford RM1 2AL	EW C
Grampian Regional Council (Water Services Department)	Woodhill House, Ashgrove Road West,	GRWD
Greater London Council (Abolished April 1986)	Public Health Engineering, Drury House, 32, Vauxhall Bridge Road London SW1V 2SA	GLC
Highland Regional Council (Water Department)	Regional Buildings Glenurquhart Road Inverness IV3 5NX	HRCW
Institute of Hydrology	Maclean Building, Crowmarsh Gifford, Wallingford, OX10 8BB	IH
Lothian Regional Council (Water Supply Services Department)	6 Cockburn Street, Edinburgh	LRWD
Newcastle and Gateshead Water Company	PO Box 10, Allendale Road, Newcastle-upon-Tyne NE6 2SW	NGWC
North of Scotland Hydro-Electric Board	16 Rothesay Terrace, Edinburgh EH3 7SE	NSHE
Strathclyde Regional Council (Water Department)	419 Balmore Road, Glasgow G22 6NU	SRCW
Tayside Regional Council (Water Services Department)	<sup>12</sup> Bullion House, Invergowrie, Dundee DD2 5BB	TRWS





# PUBLICATIONS

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Title	Published	Price (inclusive of second class postage within the UK)	
		Loose Leaf	Bound
1. Yearbook 1981	1985	£10	£12
2. Yearbook 1982	1985	£10	£12
3. The 1984 Drought	1985	- -	£12
4. Yearbook 1983	1986	£12	£15
5. Yearbook 1984	1986	£12	£15

The Yearbooks are available as bound volumes or as sets of pre-punched sheets for insertion in a ring binder designed to hold five yearbooks and the five-yearly catalogue with summary statistics. The ring binder may be purchased for £42 to include the 1981, 1982, 1983 and 1984 yearbooks. Organisations and individuals purchasing the ring binder will be entitled to receive free updates of the data sheets for

individual Yearbooks when a significant revision to the published data is made. The revised data sheets will normally be issued on an annual basis.

All the Hydrological data: UK publications and the ring binder may be obtained from:-

Institute of Hydrology  
Maclean Building  
Crowmarsh Gifford  
WALLINGFORD  
OXFORDSHIRE OX10 8BB

Telephone: Wallingford (0491) 38800

Enquiries or comments regarding the series, or individual publications are welcomed and should be directed to the Surface Water Archive Office at the above address.

## The 1984 Drought

A fuller treatment of the hydrological conditions during 1984 is given in 'The 1984 Drought' an occasional report in the Hydrological data: UK series. The report documents the drought of 1984 in a water resources framework. The development, duration and severity of the drought are examined with particular reference to regional variations in intensity. Assessments are made of the likely frequency of occurrence of the drought and its magnitude is considered both in the perspective provided by historical records of rainfall and runoff, and in the context of the recent somewhat erratic climatic behaviour. A specific comparison is made with the great drought of 1975/76.













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